

A VIEW OF THE VALLEY: THE 1913 FLOOD
IN WEST INDIANAPOLIS

Nancy M. Germano

Submitted to the faculty of the University Graduate School
in partial fulfillment of the requirements
for the degree
Master of Arts
in the Department of History
Indiana University

January 2009

Accepted by the Faculty of Indiana University, in partial
fulfillment of the requirements for the degree of Master of Arts.

Master's Thesis
Committee

Philip V. Scarpino, Ph.D., Chair

Annie Gilbert Coleman, Ph.D.

Jason M. Kelly, Ph.D.

c 2009

Nancy M. Germano

ALL RIGHTS RESERVED

DEDICATION

To Rick, with all my love. Thank you for accompanying me on this journey.

ACKNOWLEDGMENTS

There are so many people who made this thesis possible. I want to thank my family, friends, professors, and classmates who expressed encouragement along the way. I truly appreciate my professors and fellow students, who read the many evolutions of this project and offered feedback and guidance, and the staffs at the following institutions, who always showed interest in my research and provided expert assistance: Indiana State Library, Indiana Collection; the Commission on Public Records, Indiana State Archives; and the Indiana Historical Society. The members of the Employee Benefits Group at Ice Miller LLP deserve recognition for fostering this opportunity with flexibility and words of support. Special thanks to Professor Nancy M. Robertson for helping articulate this project in its incubation stage and continuing to think of me and share potential sources, Professor Robert G. Barrows for leading me to the Journals of the Common Council of Indianapolis, and Thomas R. Newby, Adjunct Professor of Law at Indiana University School of Law - Indianapolis, for imparting his knowledge about case law research and introducing me to the Indiana Supreme Court Library.

Finally, I want to thank and acknowledge my thesis committee: Professor Jason M. Kelly, for carefully reading and offering insightful suggestions; Professor Annie Gilbert Coleman, for her enthusiasm and inspiring guidance in the field of environmental history; and Professor Philip V. Scarpino, for introducing me to the International Water History Association, encouraging and believing in my topic, and patiently and wisely advising on this endeavor.

TABLE OF CONTENTS

LIST OF FIGURES.....	viii
INTRODUCTION.....	1
CHAPTER 1: A REGIONAL PERSPECTIVE	19
Regionalism.....	23
The Wabash River Basin.....	27
Rivers in the Basin	40
Regional Comparisons	45
Summary	51
CHAPTER 2: THE COMMUNITY OF WEST INDIANAPOLIS	55
Places in History.....	57
The People and Businesses	60
The Relationship with the River	79
CHAPTER 3: THE 1913 FLOOD	85
The Topography	95
Flood Prevention	99
The Modern City	101
Flooding in West Indianapolis	106
CHAPTER 4: PUBLIC POLICIES AND THE ENVIRONMENT	115
Historical Studies	116
Political Ecology	125
Municipal Powers.....	129
State Powers	136
Federal Powers	139

Powers of Citizens and Place	141
CONCLUSION: WEST INDIANAPOLIS TODAY	152
BIBLIOGRAPHY	165
CURRICULUM VITAE	

LIST OF FIGURES

Figure 1. Map of Wabash River Basin.....	2
Figure 2. Steamboat <i>Governor Morton</i>	4
Figure 3. West Indianapolis in 1913	11
Figure 4. Soil Map of Marion County in 1907.....	12
Figure 5. Location of the Wabash River Basin	22
Figure 6. Future Site of West Indianapolis	62
Figure 7. 1898 Sanborn Map.....	63
Figure 8. West Indianapolis Fire Department and Police Station	69
Figure 9. Church of the Assumption	71
Figure 10. “The New City Limits”	73
Figure 11a. 1910 U. S. Census (Claghorn Family)	77
Figure 11b. 1910 U. S. Census (Longemire Family)	78
Figure 12a. Washington Street Bridge One Hour Before Collapse	87
Figure 12b. Washington Street Bridge, Flood Damage	88
Figure 13. West Indianapolis in 1913	90
Figure 14a. Abandoned Street Car	92
Figure 14b. Silver Avenue in West Indianapolis	93
Figure 15. Topographical Map of Marion County	96
Figure 16. Map Showing Principal Sewers of Indianapolis.....	103
Figure 17. Looking North on Coffey from Ray Street, 1913	109
Figure 18. “A Reason Sanitary Measures are Necessary”	111
Figure 19. 1915 Sanborn Map of West Indianapolis	132
Figure 20. 523 Coffey Street in West Indianapolis.....	156

Figure 21. 805 and 807 River Avenue in West Indianapolis	157
Figure 22. 810 River Avenue in West Indianapolis	158
Figure 23. Looking Across White River	159
Figure 24. Looking East on Oliver Street	160

INTRODUCTION

There is a river in Indianapolis, although it is not one of the better known, navigable rivers. The White River is a tributary of the Wabash River, with its West Fork meandering through the city. (See Figure 1.) Indianapolis is today one of a few state capitals in the United States that is not situated on a commercially navigable body of water. This simple fact has held significance for Indianapolis and its inhabitants throughout the city's existence. In 1821, when the commissioners to the legislature selected the site for Indiana's capital city, river navigation consisted of canoes and flatboats, and in the early years of the nineteenth century, White River was navigated by hundreds of boats of considerable size.¹

At first White River appeared to live up to the expectations of the commissioners. In the spring of 1821, a keel boat loaded with flour, bacon, whiskey, and "other necessities of life" made a successful trip from Frankfort, Kentucky, to Indianapolis via the Ohio, Wabash, and White Rivers. Noah Noble (Indiana Governor 1831-1837) believed the river was capable of more extensive navigation, and in 1828-29, he offered a reward of \$200 to the first captain who would bring a steamboat to Indianapolis.²

Unfortunately for the residents of Indianapolis, the steamboat excursions that followed soon proved White River to be a difficult and unreliable route of transportation. In April 1830, Captain Saunders made two attempts at claiming the Governor's reward.³ His steamboat *Traveller* made it as far as Spencer, Indiana, and his steamboat *Victory*

¹Jacob Piatt Dunn, *Greater Indianapolis: The History, the Industries, the Institutions, and the People of a City of Homes* (Chicago: The Lewis Publishing Company, 1910), 1:18.

²*Ibid.*

³The first name of Captain Saunders has not been preserved in the sources.

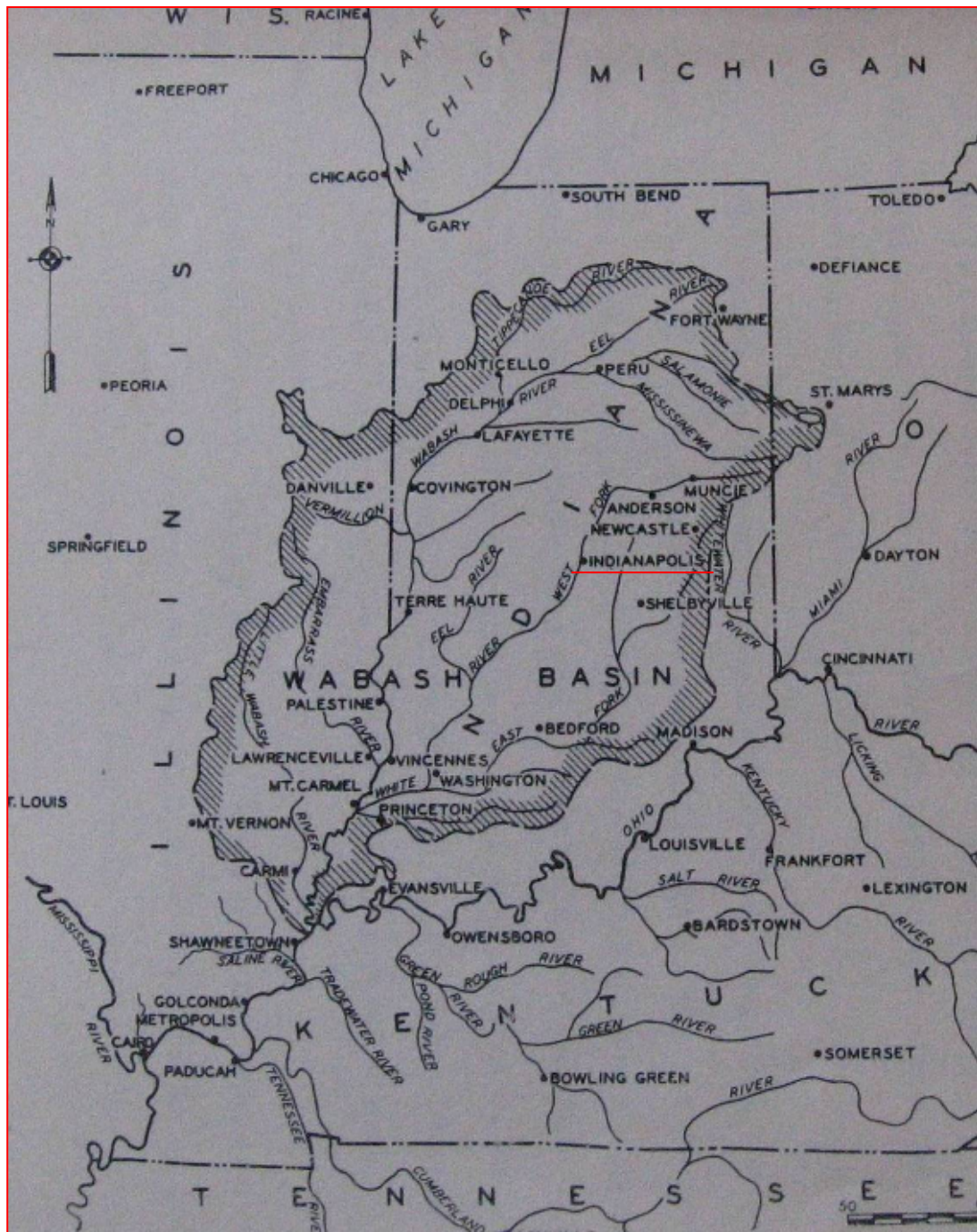


Figure 1. Digital photograph of map showing Wabash River Basin. *Flood Control Plan: Wabash River and Tributaries*, U. S. Engineer Office, Louisville, Kentucky, April, 1938, Revised December, 1938, prepared under the direction of Lieut. Col. D. A. Davison, Corps of Engineers, District Engineer, Louisville District. Courtesy of Indiana State Library.

came within fifty-five miles of Indianapolis before the river level began to fall and he had to seek safety downriver.⁴

In 1831, General Robert Hanna decided to accept the challenge with his steamboat hauling stone and timber for bridges from Cincinnati. Although he and his crew encountered some difficulties, they successfully arrived in Indianapolis on 11 April 1831. The mayor called a public meeting and appointed a committee to arrange an appropriate celebratory event. As part of the celebrations, the *General Hanna* made two excursions upriver from Indianapolis on 12 April 1831 with large loads of passengers. During one of the trips, the boat lost its pilothouse and chimneys when it ran into an overhanging tree, and a number of passengers had to jump into the river. Despite this mishap, these excursions were also considered successful. When the *General Hanna* started back down the river on 13 April, it grounded on a sandbar south of Indianapolis and was stuck there for six weeks before finally completing the trip in the fall.⁵

No other attempts were made until 1865 when the Indianapolis and White River Steamboat Company launched the *Governor Morton*. (See Figure 2.) Its maiden voyage on 25 August 1865 was successful, but the farthest north the steamboat reached was Cold Spring, about three miles north of Indianapolis, on 29 April 1866. Its short career ended on 6 August 1866 when it sank at its moorings below the National Road bridge in Indianapolis with no one on board except the sleeping watchman. By then, the *Governor Morton* had been reduced to a running joke (allegedly, “her most profitable trip was one when she stuck on a sandbar for several hours, and the bar took in \$168 for drinks, at 25

⁴Dunn, 1:18.

⁵Ibid., 1:18-19

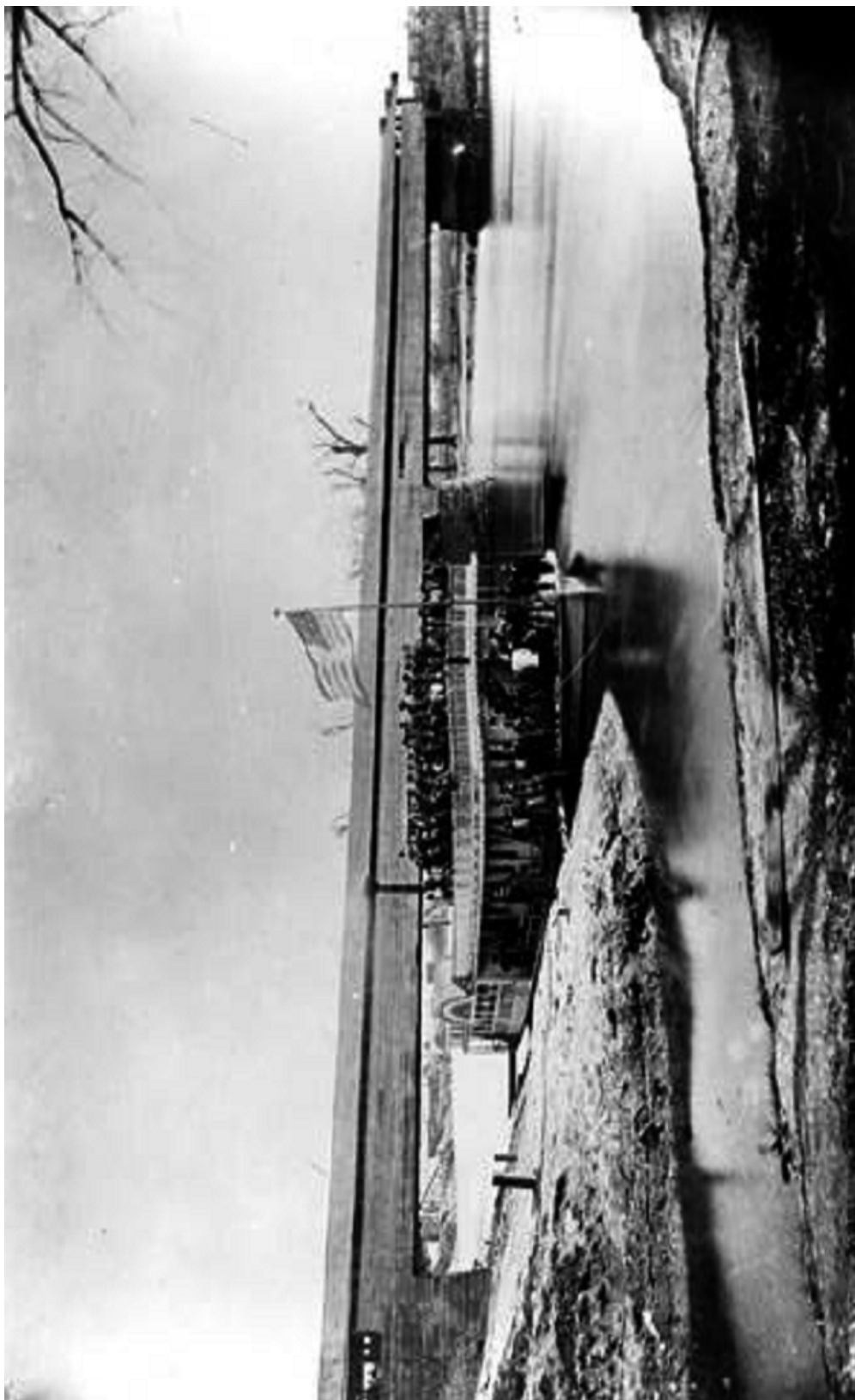


Figure 2. Steamboat *Governor Morton* near West Washington Street Bridge (Bass #31201), W.H. Bass Photo Company, circa 1860s. Courtesy of Indiana Historical Society, Digital Images Library.

cents per quench”⁶). The steamboat failures helped establish the idea that modern navigation on White River was unprofitable. Indianapolis residents set aside their hopes for a navigable river and looked instead to canals and railroads for economic success. The failure of commercial transportation on White River is only one facet of the story that the river shares with Indianapolis.

This study explores the shared history of West Indianapolis and the White River and reveals an interdependent, yet conflicted, relationship between the people and the river. This relationship was part of a broader set of attitudes that natural resources were unlimited and that humans must master the landscape. From the founding of Indianapolis in 1821 until the flood of 1913, a series of uncoordinated human actions related to settlement and growth of the city took place. Despite noble intentions of progress and improvement, the cumulative effect of these actions resulted in unintended and undesired consequences in the form of a flood disaster in 1913, an unhealthy environment in West Indianapolis, and a negative identity for that community. One might argue that these results occurred because nineteenth century settlers in the Indianapolis area lacked an understanding of the nature of rivers or that scientists had not yet proven the germ theory. As shown in this study, however, the historical sources support an argument that the relationship between the people and the river dictated the fate of the river and the community of West Indianapolis, which suffered significant damage when White River overflowed its banks in the “Great Flood” of 1913.

To fully appreciate the interwoven story of Indianapolis and White River, it is important to understand the land the city occupies and its nature prior to and after Euro-American settlement. When the glaciers in the Wisconsin Stage of the Ice Age migrated

⁶Ibid., 1:19.

south, they leveled the land in northern and central Indiana. The retreat of these glaciers deposited rich soil that bred and nourished hardwood forests. Numerous rivers and streams providing food, water, and a means of transportation also crisscrossed the territory. This was the landscape occupied by Native Americans and later discovered by Spanish, French, and British explorers—a landscape that offered a seemingly endless supply of resources.

The Wabash River and its tributaries were alluvial streams, meaning that they carried and deposited soil material and regularly overflowed their banks. During this process, the soil along the banks was replenished with vital nutrients, and the river created a natural flood control system. When the water rose above the banks, larger debris carried by the rushing water was deposited along the banks, thereby building up the banks to within inches of the crest. The spreading water carried finer silt farther back from the banks.⁷

The Native Americans “did not concern themselves with flood control. They took conditions as they found them, and followed the path of least resistance.”⁸ This was not the case with the white newcomers, who coveted the fertile soil and flat land closest to the riverbanks. This land seemed to them a prime location to grow crops and to satisfy transportation needs. If the water did get a few inches over the bank of the river, these newcomers assumed the river could be held back with a small levee. European settlers also saw the rich soil of the forests and believed that clearing the trees would provide fine locations for farm lands and towns. Settlement proceeded without regulation of where a

⁷J. P. Kemper, *Rebellious River: Use and Abuse of America's Natural Resources* (Boston: Bruce Humphries, Inc., 1949; reprint by permission of Branden Press Inc., New York: Arno Press, a New York Times Company, 1972), 28 (page citations are to the reprint edition).

⁸*Ibid.*

person could live or what he or she could do with the land. The artificial grid pattern that divided the Northwest Territory further interfered with the landscape and imposed impossible boundaries on ecological systems.⁹

The conflict between natural systems and white settlement played out in Indianapolis as well. In 1820, when the commissioners to the legislature explored and surveyed the land that would later become Indianapolis, they believed they had found a location with excellent farming potential, a plentiful supply of fresh water, and a navigable river centrally located in the state. The site was intersected by White River, Fall Creek, Eagle Creek, Pleasant Run, and Pogue's Run. One commissioner commented that the banks of White River were from 25 to 30 feet above the water, and the back country was high and dry with good soil. Apparently, the year 1820 was a relatively dry year because Indianapolis residents' battles with marshy lands and flooding problems began shortly after the city's inception bringing into question the suitability of the location. The new inhabitants of Indianapolis struggled to control and utilize the ample supply of water.¹⁰

In the spring of 1821, the new capital city saw the first series of floods that would plague Indianapolis for many years. The receding waters left stagnant ponds that provided breeding places for malaria-carrying mosquitoes. In January 1847, a thaw and a heavy downpour of rain lasting several days "unleashed the full fury of the White River and Fall and Eagle Creeks." Tons of churning water carried away homes, tore out canal banks, and washed out whole sections of the National Road. The 1847 flood was "far worse than the floods of 1828, [and] the town's distress was so great that the legislators

⁹Ibid.; *Encyclopedia of Indianapolis*, s.v. "Urban Environment," by Philip V. Scarpino, 199.

¹⁰Dunn, 1:7.

extended the deadlines for payment of property taxes and remitted some.”¹¹ Both major and minor floods continually occurred. It is little wonder that many of the founders quickly began to view Indianapolis as “situated in a vast mud-hole which could never be dried up so as to be depended upon.”¹²

The settlers viewed rivers and streams in contradictory terms, not uncommon to Americans more generally. They expected White River and its tributaries to fill conflicting needs—clean water uses and waste disposal. The water sources were absolutely necessary, yet they were not treated as such and were considered a nuisance when flooding occurred. These tensions would become more significant as the city grew and developed in the century after 1820. Similar to many other areas of the country, settlers in Indianapolis began by clearing the hardwood forests to make way for homes, barns, farm fields, and civic structures. Clearing the forests, however, removed the natural drainage system, caused land erosion, and increased the volume of soil and debris obstructing river flow. Landowners constructed levees to hold back the rivers during flood seasons, and city developers built bridges over the river and streams to aid transportation. But, levees and bridges narrowed the natural flow of these waterways and changed the character of flood waters.

As Indianapolis grew into a modern city, its citizens found alternative uses for the non-navigable White River. These changes, made in the name of progress and improvement, held serious ramifications for both the river and residents. For example, in the late nineteenth century, sanitary engineers designed the growing city’s sewer system

¹¹Edward A. Leary, *Indianapolis: The Story of a City*, (Indianapolis/New York: The Bobbs-Merrill Company, Inc., 1971), 21 and 56.

¹²Ibid., quoting from Catharine Merrill’s diary, 33. See also Dunn, Vol. 1; Logan Esarey, *A History of Indiana: From Its Exploration to 1850* (Indianapolis: Hoosier Heritage Press, Inc., 1970).

in the customary method so that waste flowed into the river. Moreover, with its location on the National Road, at the “crossroads of America,” Indianapolis developed into a center for railroads, stockyards, and industry. Property owners believed that the swampland close to White River was most profitable when devoted to these endeavors, resulting in overdevelopment and consumption of the fragile floodplain. Simultaneous with growth in Indianapolis, agriculture and industry expanded upriver from Indianapolis. The river received the brunt of runoff and discharge from developing towns, businesses, and farms. The character of the river was decidedly changing for the worse, as was clearly revealed during the disastrous “Great Flood” of 1913.

The “Great Flood” affected the entire midwestern section of the United States and received national attention. According to a United States Congressional report, the flood of 1913 stood out from its predecessors especially because of the exceptional magnitude and intensity of the storms and because the greatest damage occurred along tributaries, which in the past had not been the case.¹³ The United States Weather Bureau reported a rain total in Indianapolis in excess of six inches during the period beginning 23 March 1913 through 27 March 1913. While six inches of rain over a five day period is not an extraordinary amount, the Weather Bureau’s reports in the *Indianapolis News* indicate that this storm followed a month of unsettled weather patterns that alternated between freezes and thaws and a high amount of precipitation. Furthermore, an unusually high amount of precipitation occurred in the month of January 1913. The ground was saturated when this storm arrived. According to the Weather Bureau, the flooding that

¹³A. H. Horton and H. J. Jackson, *The Ohio Valley Flood of March-April, 1913 (Including Comparisons with Some Earlier Floods)*, House of Representatives, 63d Congress, 2d Session, Document Number 421, Water-Supply Paper 334, Department of Interior, United States Geological Survey, George Otis Smith, Director (Washington, D.C.: Washington Government Printing Office, 1913), 47.

resulted “cost the lives of scores of people, rendered many thousands homeless, and destroyed property beyond estimate. . . . The enormous losses over such an extended area is unprecedented in the history of this portion of the United States, and it must follow that an occurrence so unusual must have been produced by extraordinary weather conditions.”¹⁴

While many sections of the city flooded in 1913, West Indianapolis was the area of the city hit hardest by that flood. It was a recently-annexed suburb located southwest of downtown Indianapolis on the other side of White River. Its borders were White River to the east, the Pennsylvania Railroad line to the north, Eagle Creek to the west, and Raymond Street to the south. (See Figure 3.) The low-lying area was inundated with overflows from both White River and Eagle Creek. This viable community, so important to the early boosters and the eventual economic success of Indianapolis, was swallowed by the larger city and then slipped from view. This case study of the “Great Flood” of 1913 and its effects on West Indianapolis reveals how the relationship between city residents and the river impacted not only the environmental history but also the social fabric of the city.

People and their environments are not separate, as environmental historian Richard White proves in *The Organic Machine: The Remaking of the Columbia River* (1995). This claim rings true for West Indianapolis, which was located on low-lying land at the bottom of a major developing urban center. (See Figure 4.) For years the waste from Indianapolis had been directed toward West Indianapolis, both by natural and

¹⁴Department of Agriculture, Weather Bureau, *The Flood on White River in March, 1913*, by Verne H. Church, Section Director (Indianapolis, April 8, 1913), located at the Indiana State Library.

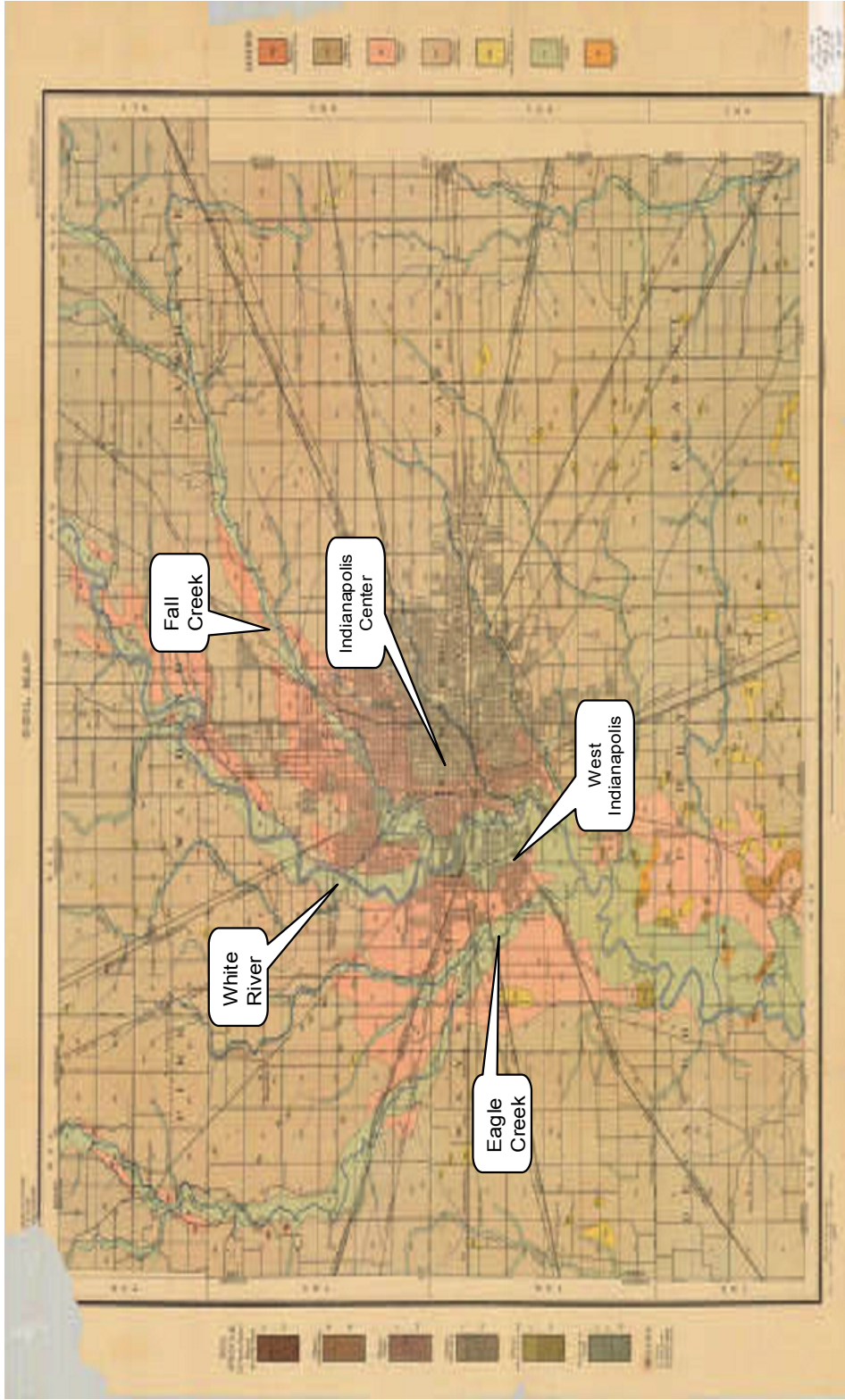


Figure 4. Soil Map, Marion County sheet (map) (marioncntysoilmap1907_300.tif). U.S. Department of Agriculture, Bureau of Soils, circa 1907. Courtesy of IUPUI University Digital Images Library, Historic Indiana Maps Collection.

engineered means. After the 1913 flood, the community of West Indianapolis became intertwined with their bottomland environment on the fringes of the capital city.

The 1913 flood was in part a natural occurrence, but the devastation from the flood in West Indianapolis was also an artifact of the city's development and residents' attitudes toward the use of the river.¹⁵ Flood waters contained the accumulation of years of human and industrial waste that washed through the city and was deposited in West Indianapolis. Flooding resulted in unhealthy and disconnected areas of the city, shifts in social power, and other undesired and unintended cultural changes. These outcomes were possible largely because of the nature of the relationship Indianapolis residents had with the river.

In his classic work, *The Culture of Cities*, historian of urban planning, Lewis Mumford, calls the city a "geographic fact" and the river a "unifying agent."¹⁶ Mumford notes that rivers initially provided transportation, then irrigation systems for crops and transportation canals for commerce; even the railroads usually clung to riverbanks. In Indianapolis, White River unified the city in some ways—residents, business owners, and government alike considered the river non-navigable and believed that the river must be controlled through various means such as levees and straightening. They expected the river to provide clean water, and they used the river as a dump. These groups were united in their belief that the river must be controlled and manipulated to serve their needs. But, in other ways, White River divided the city. The land east of the river was at a higher elevation, and city founders selected this land for the original one-mile plat. City developers classified West Indianapolis, a suburb west of the river on low-lying

¹⁵Scarpino, 199.

¹⁶Lewis Mumford, *The Culture of Cities* (New York and London: Harcourt Brace and Jovanovich, Inc., 1938; recopyrighted by Lewis Mumford, 1970), 316 (page citations are to the recopyrighted edition).

land, as the prime location for industry, railroads, stockyards, and the city dump. The river that originally contributed to the selection of the site and unified the city's inhabitants, developed into a dividing feature when, after years of manipulation and misuse, the river reaped repercussions. The river was the littered battleground on which the environmental impact of human settlement played out.

As Ari Kelman explains in *A River and Its City: The Nature of Landscape in New Orleans* (2003), the relationship between the residents of a city and the river is reciprocal. This interdependent relationship is the key understanding often missing when people perform actions in response to flooding, which in turn net unintended consequences. The river, when manipulated by human actions, often behaves in undesirable, unforeseen ways, which prompts further modifications. Thus, the relationship is formed. The topography of Indianapolis was certainly susceptible to flooding prior to changes wrought by humans, but those human actions served to increase flooding problems, reflecting the interdependent relationship that existed between the river basin and its inhabitants.

The contemporary field of environmental history emerged in the last third of the twentieth century and initially represented the political and intellectual history of the environmental movement, and its predecessor, the conservation movement.¹⁷ American scholars wrote about the importance of the human relationship with nature as early as 1874 when George P. Marsh introduced his book, *The Earth As Modified By Human Action; A New Edition of Man and Nature*, in which he points to the connection between settlement patterns, such as deforestation, and increased flooding, erosion, and climate

¹⁷Richard White, "American Environmental History: The Development of a New Historical Field," *Pacific Historical Review* 54 (1985): 299-300.

changes. Another compelling environmental study appeared in 1949 with J. P. Kemper's book *Rebellious River: Use and Abuse of America's Natural Resources*. Both of these early environmental scholars asserted the interrelationship between people and nature. As Kemper illustrates, "there is no way to destroy energy. . . . In attempting to control floods in the past, the idea seems to have prevailed that the water had no rights and could be sloshed around any old way."¹⁸ Certainly, White River was "sloshed around" in the name of improvement.

The 1913 flood not only wreaked havoc on homes and personal belongings, but it also reworked the landscape of West Indianapolis and the identity of that community. The flood enforced the popular belief that the land was best suited for industry and low-income housing. After the flood waters receded from West Indianapolis in April 1913, it was as if the flood left a persistent stain on the reputation of that community. The area nearest to White River, called the "Valley," became undesirable. The area contiguous to the Valley, called the "Hill," became a place of refuge. Flooding divided and labeled the community and, more importantly, the flood emphasized the disposable nature of this community. Recurrent flooding in the Valley seemed to give politicians and planners license to resign the Valley to an environmentally unfriendly place. The landscape in 1821 existed as hardwood forests and swamps, changed to farmland and homes, then modest homes integrated with business and industry. The flood highlighted the political ecological process of "environmental destruction" resulting from this pursuit of the most economically beneficial use of the land.¹⁹

¹⁸Kemper, 9.

¹⁹See Paul Robbins, *Political Ecology: A Critical Introduction* (Malden, Massachusetts: Blackwell Publishing, 2004), 96.

Negative social distinctions developed for residents of West Indianapolis following the 1913 flood, reflecting the stagnant ponds left behind. Citizens of Indianapolis associated those living in West Indianapolis with the dirtiness and unhealthy conditions that existed in the aftermath of this monumental flood, and these feelings developed into a mixture of fear of and disassociation from West Indianapolis. The stigma associated with West Indianapolis was not a simple matter of people wanting to distance themselves from the filth left behind by the flood. This flood event did not occur without any history behind it. Mumford reminds that “local history implies the history of larger communities to a much greater extent than national history implies the local community. Every great event sweeps over the country like a wave; but it leaves its deposit behind in the life of the locality; and meanwhile that life goes on, with its own special history, its own special interests.”²⁰ While one might attribute many of the changes that occurred in West Indianapolis to the nation’s industrial revolution of the late nineteenth century, the history of settlement and growth in Indianapolis tells a story of its own informative of the city’s flooding challenges.

Chapter 1 lays the groundwork by looking at the development of the Wabash River Basin as a region to which West Indianapolis belongs. A regional study offers a broader perspective of the multiple factors impacting the culture of a place and, consequently, the thinking behind approaches and responses to flooding. The chapter also explores the non-navigable status of the regional rivers and the influence of this status on the inhabitants’ relationship with the rivers and their perception of flooding.

²⁰Lewis Mumford, “The Value of Local History,” in *The Pursuit of Local History: Readings on Theory and Practice*, ed. Carol Kammen (Walnut Creek, California: AltaMira Press, A Division of Sage Publications, Inc., 1996), 87, reprinted from Lewis Mumford, “The Value of Local History,” *Year Book 12* (Poughkeepsie, NY: Dutchess County Historical Society, 1927): 22-26.

Then, by expanding into areas outside the region to explore flood prevention and responses from a regional perspective, this chapter contextualizes flooding and flood control issues in the White River Basin. Unlike Indianapolis, flooding in these other locations has been the topic of scholarly writing and provides insight into events that occurred in West Indianapolis.

Chapter 2 introduces and identifies some of the people of West Indianapolis—who they were, where they came from, why they came, and what they did once they arrived. Of course, there are great men who made a name for themselves in history books, but this study includes working men, working women, and children. In addition, this chapter explores the relationship that the local people in West Indianapolis had with White River. Finally, it establishes the social and cultural history of West Indianapolis prior to the 1913 flood in order to highlight the changes effectuated by the 1913 flood.

The flood history of Indiana, including the “Great Flood” of 1913, is the topic of Chapter 3. This chapter discusses the environmental impact and significance of flooding, by recounting the history of flooding in the White River Basin and actions taken to respond to and control flooding. One specific issue addressed is why flooding created the “Valley” in West Indianapolis, an undesired and unintended negative identity, and reinforced a decline in conditions and a change in the cultural geography.

Chapter 4 discusses the political ecology of West Indianapolis and the impact of geography on public policies. If indeed public policies originate with the citizens of a place, then identifiable factors must have influenced the people of Indianapolis to initiate and lobby for adoption of policies that impacted their environment, including the river and flood control. This chapter delves into the circumstances surrounding flood control

actions in Indianapolis and discusses how flood control and conservation policies affected the social and cultural history of West Indianapolis. Negative press following the 1913 flood labeled the area, but the intrinsic geography and nascent public policies laid the foundation for that imposed identity. Land sales that, in effect, drew migrating families to less than desirable areas, a court ruling that the river was non-navigable, unchecked settlement practices, imposition of political boundaries on natural systems, and uncoordinated flood control efforts helped construct that foundation.

This study concludes that the relationship between people and the river created an unintended identity for West Indianapolis. The combination of beliefs that resources were limitless, attitudes that nature could be controlled, and values rooted in economic success ultimately shaped the environment and meaning of the place. The geography ensured the result. Finally, this study examines the changes that occurred in West Indianapolis following the 1913 flood, including its isolation from the larger city.

The period for this study begins with 1821, the year the state legislature established Indianapolis as the capital city of Indiana, because it was then that Indians first imposed their values on the existing environment. The study ends in 1923, ten years after the “Great Flood.” The treatment is topical and chronological within each topic.

Additional factors that impacted the environment of West Indianapolis are not covered, such as industrial air pollution or the results of the Interstate Highway Act. Focusing on flooding allows an in-depth examination of one aspect, and as already suggested, the interdependent nature of the environment means that one factor will impact the others. Without one, there would not be the other; each simply adds another facet to the story.

CHAPTER 1: A REGIONAL PERSPECTIVE

Interconnectedness is the sinister companion of chaos. . . .

--Terry G. Jordan, "The Concept and Method"

The Wabash River Basin includes 33,000 square miles covering 68 percent of the state of Indiana, 16 percent of the state of Illinois, and a small fraction of the state of Ohio. The Wabash River rises in Ohio thirty miles east of the Indiana border, then stretches in a westerly direction across the northern portion of Indiana through Peru until it veers southwesterly toward Lafayette. From there, the river flows through Covington and Terre Haute before creating the border between the states of Illinois and Indiana and then joining the Ohio River at the confluence of the states of Indiana, Illinois, and Kentucky.²¹ Some of its larger tributaries include the Little Wabash River, Embarrass River, White River, Tippecanoe River, Eel River, Salamonie River, and Mississinewa River.²² (See Figure 1 on page 2.)

This chapter explores flooding from a regional perspective and seeks to answer the following questions: What factors made the Wabash River Basin a region? How did the region play a part in the relationship that formed between people and the rivers? Did a regional mindset contribute to flooding issues? How do responses to flooding in one region differ from the responses in another region? The information presented discloses

²¹The Wabash River formed the downstate border between Illinois and Indiana until the flood of June 2008 when the river carved a new channel and created an island of 1,700 acres at the southwestern tip of the state of Indiana. Geographers expect the oxbow of the river's original path to dry up so that these 1,700 acres of Indiana will lie on the other side of the Wabash River. As the journalist notes, "the land's reshaping supplies a lesson in the power of a river to change lives, play havoc with tax and title records, and shake a citizenry's grasp of geography." Jeff Swiatek, "Changing Channels," *Indianapolis Star*, 11 September 2008.

²²Ronald R. Boyce, ed., *Regional Development and the Wabash Basin* (Urbana: University of Illinois Press, 1964), v and 9.

how Indianapolis and the West Indianapolis suburb were part of a larger regional system that influenced the perception of and identity assigned to the rivers in the region.

One significant source informing this chapter is a series of papers prepared by members of the Wabash Valley Advisory Committee, a group formed in the late 1950s, chaired by Professor Harold W. Hannah, University of Illinois, with representatives from Indiana and Illinois universities and state agencies. The committee's tasks were to explore why regional development in the basin lagged behind neighboring regions and discover possibilities for future development. Although the committee intended to focus on economic, agricultural, industrial, and recreational development, the topics of water resource planning, water conflicts, and water management naturally permeated the study. In introducing the committee's findings, Ronald R. Boyce reports that water in the Wabash River Basin is considered "more a problem . . . than an asset," evidenced by the fact that during the period from 1875 to 1955, fifteen "major" floods occurred on the Wabash, with average annual flood damage amounts of several million dollars.²³

Professor Hannah explains that "water and its physical behavior . . . provide the unifying factor which makes a river basin and its various watersheds an entity."²⁴ The river basin functions as an entity from the perspective of the ecologically interdependent relationship of each of its features. Looking at the whole, the Wabash River Basin is a landscape of wetlands, hardwood forests, rich soil, the river and its many tributaries, and a climate abundant with rain and rapidly changing weather conditions. If the wetlands are drained, for example, the hardwood forests will experience a decline. The basin not

²³Ibid., 42. Note that the flood damage amounts are stated in terms of the value of the dollar in 1953 based on U.S. Army Corps of Engineers, Louisville, *Interim Report on the Wabash Basin and Tributaries at and About White River, Indiana* (1955), 55-57.

²⁴Ibid., vi.

only functions as an interconnected entity, but it also plays an instrumental role in the lives of its inhabitants. Because of this crucial relationship, the region for purposes of this study of flooding is defined as the Wabash River Basin.

The Wabash River Basin's site includes a varied topography, with a flat to gently undulating northern portion and a rolling and rougher southern portion. It is situated in America's agricultural heartland, in the manufacturing belt, at the "crossroads of America," and in close proximity to major metropolises, such as Indianapolis, Chicago, Detroit, Dayton, Cincinnati, Louisville, and St. Louis. (See Figure 5.) According to the study conducted by the Wabash Valley Advisory Committee, the situation of the Wabash River Basin allowed it to "far exceed the national average in terms of population density, industrial output, income per capita, and many other criteria of regional importance."²⁵ Therefore, the region's site and situation have played a significant role in defining its successes, challenges, and culture.²⁶

The Wabash River Basin "is best viewed as a region of contrasts," because of the varied topography and the resulting irregular economic development. Compared to the northern portion of the region, which includes the Indiana state capital of Indianapolis, the southern portion has faced the most challenges in terms of agricultural success, industrial development, and flood control. This diversity has challenged regional planners when making important decisions such as placement of reservoirs and additional industry.²⁷ Regardless of the contrasts that existed in the region, flooding was one

²⁵Ibid., 10-11.

²⁶Lewis, 19-20. Urban geographer Pierce F. Lewis introduced the terms "site" and "situation" to conceptualize the role of a city's landscape. Lewis defines "site" as the actual real estate which the city occupies and "situation" as the place with respect to neighboring places.

²⁷Boyce, 11.



Figure 5. Location of the Wabash River Basin. *Regional Development and the Wabash Basin*, ed. Ronald R. Boyce (Urbana: University of Illinois Press, 1964), 10.

common denominator. One might argue that the topography of the region dictated this result.

The “Great Flood” of 1913 was a disaster that affected the entire midwestern portion of the United States. The storm that began in Nebraska slowly marched across the country leaving destroyed towns in its wake. In economic terms, the Wabash River Basin incurred costs associated with this flood in the amount of \$29,658,000.²⁸ Although some categorized the storm and resulting flood as a “natural” disaster or an “act of God,” the extent of the flood damage was exacerbated by human actions. This chapter looks at how the Wabash River Basin constituted and functioned as a region and whether these human actions were undertaken within a regional mindset. Studying the various facets of the Wabash River Basin together reveals that people in the region shared certain attitudes toward nature and the rivers that spawned a flooding disaster in 1913.

Regionalism

Taking a step back to view history from a regional perspective contributes additional meaning and significance. Instead of focusing on one city within the region and floods that impacted that single place, taking a look at the region gathers important information for an interconnected area. Geographer Terry G. Jordan argues in favor of regional studies for students because regional classifications simplify reality to enable learning about the world while “avoiding lapses into pure description.” According to Jordan, the concept of regionalism “may be a universal, inborn human way of looking at

²⁸Ibid., 42. Note that the flood damage amount is stated in terms of the value of the dollar in 1953 based on U.S. Army Corps of Engineers, Louisville, *Interim Report on the Wabash Basin and Tributaries at and About White River, Indiana* (1955), 55-57.

the earth”—a way to control the chaos.²⁹ Jordan is concerned with making geographic connections to bring some logic to the forefront. Certainly, a major flood creates chaos that begs for logical explanation.

Historians’ purpose in regional studies is to combine disciplines to come to a greater understanding of the history of a place. Susan H. Armitage points out that “we historians owe our particular usage of the term regionalism to Frederick Jackson Turner,” whose frontier thesis exploring “the uniquely American traits of individualism and democracy” arrived on the scene in 1893.³⁰ Armitage notes that Turner and other early regional historians focused on the dominant groups, excluding groups on the periphery. More recently, “thanks to historians’ growing awareness of the work of historical geographers and the very rapid growth of environmental history, our definitions of regionalism are getting much more precise.”³¹

Similar to geographers, historians typically conceptualize regionalism as the study of pertinent relationships: between people and the land, or between the region and other areas (i.e., other regions or the nation). Connecting people with the land, Donald Worster provides an insightful explanation of regionalism:

The history of the region is first and foremost one of an *evolving human ecology* [emphasis added]. A region emerges as people try to make a living from a particular part of the earth, as they adapt themselves to its limits and possibilities. What the regional historian should first want to know is how a people or peoples acquired a place and, then, how they perceived and tried to make use of it.³²

²⁹Terry G. Jordan, “The Concept and Method,” in *Regional Studies: The Interplay of Land and People*, ed. Glen E. Lich (College Station: Texas A&M University Press, 1992), 9.

³⁰Susan H. Armitage, “Gender and Regionalism,” in Lich, 85; Richard Jensen, “On Modernizing Frederick Jackson Turner: The Historiography of Regionalism,” *Western Historical Quarterly* 11, no. 3 (1980): 309.

³¹Armitage, 85.

³²Donald Worster, “New West, True West: Interpreting the Region’s History,” *Western Historical Quarterly* 18, no. 2 (1987): 149 (italics added), quoted in Armitage, 85-86.

Bringing ecology into the explanation emphasizes the interconnected relationship between not only people and the land, but also the impact actions taken by one person living in a region will have for other regional inhabitants.

Regional historians not only proclaim the opportunities offered by regional studies, but they also caution that these studies can be elusive. Regionalism establishes a framework for “studying without separating what nature, history, and culture have put together” and recognizing the complement of “local and global, regional and national, the particular and the universal.” These are “not antithetical concepts.”³³ However, ascertaining all the factors that created a regional culture may not be possible. As John Lauritz Larson points out,

What shaped the culture on American frontiers like pioneer Indiana was an inherently *historical* process governed by people *and* place and also dreams and ambitions that reflected as clearly the times and the terms of settlement as the determinative landscape or the cultural baggage brought by the pioneers.³⁴

Although elusive, the existence of regional culture is clear. Cultural landscapes take on clear character even though they are the result of decisions of innumerable individuals.³⁵

Lending another view of regionalism, many historians have focused on regional identity as something derived from outside forces. Andrew R. L. Cayton and Susan E. Gray state that

regionality was a cultural and political expression of peripheral status transformed into boasts of moral superiority and demands for a greater, territorially specific voice in national government. Regional communities

³³Jim Wayne Miller, “Anytime the Ground is Uneven: The Outlook for Regional Studies and What to Look Out For,” in *Geography and Literature: A Meeting of the Disciplines*, ed. William E. Mallory and Paul Simpson-Housley (Syracuse, N.Y.: Syracuse University Press, 1987), 17, quoted in Glen E. Lich, “Spatial Integration: The Argument for Context,” in Lich, 170.

³⁴John Lauritz Larson, “Pigs in Space; or, What Shapes America’s Regional Cultures?” in *The American Midwest: Essays on Regional History*, ed. Andrew R. L. Cayton and Susan E. Gray (Bloomington and Indianapolis: Indiana University Press, 2001), 70.

³⁵Rapoport, 178, 137.

emerged among people who felt excluded or potentially excluded from the national discourse and the national patronage trough, and who found in their shared alienation a way of demanding recognition of their special attributes.³⁶

This connection of region to other entities harkens back to Turner's frontier thesis. Just as "a frontier cannot be defined except in some kind of relationship to a nation or to an international political or economic nexus," historians have argued that the same is true for a region. Historians that ascribe to this concept of region believe that the region "takes its definition from the fact that it is part of something larger—most often a nation."³⁷

Taking a regional history approach, however, is not without a unique set of challenges. The first methodological problem is determining "what is merely perceived and what is real when one discusses region and regionalism," which leads to the second problem of determining "why the perceived region or regional culture [is] sometimes a more powerful concept than the actual geographic region."³⁸ Howard R. Lamar notes that, in *The Great Plains*, Walter Prescott Webb

hit on a fundamental characteristic of a people living in a particular place over time: inevitably they try to rationalize the landscape and the social and economic conditions in which they find themselves. The image could be either favorable or negative, and it could equally well be more inaccurate than accurate, but a sense of distinctive place and/or community—or what is lacking to prevent that sense—usually comes sooner or later.³⁹

To "achieve a depth of analysis" and "acknowledge the degrees of complexity and the multiple factors that some scholars may feel is necessary in serious regional studies," Lamar recommends a method from William Cronon—the "layered look"—which

³⁶Andrew R. L. Cayton and Susan E. Gray, *The American Midwest: Essays on Regional History* (Bloomington and Indianapolis: Indiana University Press, 2001), 8-9.

³⁷Jerome O. Steffen, *Comparative Frontiers: A Proposal for Studying the American West* (Norman: University of Oklahoma Press, 1980), ix-xix, quoted in Howard R. Lamar, "Regionalism and the Broad Methodological Problem," in Lich, 26.

³⁸*Ibid.*, 25.

³⁹*Ibid.*

“identif[ies] and stud[ies] a series of overlapping entities which, taken together, define a region.” For example, a layered look might include a look at federal-regional relations, urban-rural relations, environmental issues, economic studies, transportation concerns, demographics, regional literature, public rhetoric, and art. Lamar raises the question we may be asking ourselves: “how does one evaluate all of these factors in relation to one another?” He offers in response that “one answer is to take a comparative approach.”⁴⁰

Regional studies translate into making connections that may not otherwise be apparent. The concept of regionalism has been explored, discussed, and challenged by geographers, planners, and historians. Is regionalism “real”? How can a regional culture possibly develop? Is a regional culture just perceptual, either by the people in the region or from those outside? To answer these questions, historians have suggested ways to approach the topic—comparisons, layering, documentary evidence, etc. Historians have debated the validity of the concept since 1893, yet they continue to agree that regional studies add an opportunity to raise our level of understanding.

Noting these concepts and guidelines for a regional study, this chapter first explores the different “layers” of the Wabash River Basin to achieve a depth of analysis of the relationship between people, the landscape, and in particular, the rivers. Secondly, this chapter compares flooding responses in the Wabash River Basin with those in other regions.

The Wabash River Basin

Jordan explains three possible ways of defining regions: formal regions (an area that “displays homogeneity of one or more traits”); vernacular regions (an area in which the inhabitants have a “broadly perceived regional self-consciousness”—they “believe

⁴⁰Ibid., 26.

that the region exists”); and functional regions (such as a state, a school district, or a newspaper’s sales area).⁴¹ The Wabash River Basin is both a formal region and a functional region. The area is drained by the Wabash River with an interdependent landscape. The river is the focal point that coordinates its functionality. The Wabash River Basin is also a vernacular region. The people living in the basin do not verbally identify with the region, but they have bought into a “regional self-consciousness” of living near a river that is not navigable. Throughout the region, whether a person lives along the banks of a river or miles away, the rivers do not provide an avenue for connecting with other regions. This realization of the non-navigable status of rivers may exist only subconsciously; nonetheless, it is one of the defining features of the region.

The Wabash River Basin is situated within the larger Midwest region. One could simply talk about the basin in terms of that widely accepted region. For purposes of this study, the Midwest would be overwhelming because it encompasses a multitude of subregions—states, plains, mountains, lakes, major river valleys. Furthermore, the Midwest as a region shifts, depending on your perception, to include states that arguably should be considered part of the South or the West.⁴² Defining and focusing this regional study on the Wabash River Basin accomplishes several goals. First, the region becomes more manageable and localized. Second, the region is defined by a river basin that is ecologically crucial to its inhabitants. Third, the river basin directs attention to this study’s overarching concern with the relationship between people and the rivers in their communities.

⁴¹Jordan, 16-22.

⁴²James R. Shortridge, *The Middle West: Its Meaning in American Culture* (Lawrence: University Press of Kansas, 1989), 1-12.

To set the stage, a brief explanation of the emergence of a midwestern story of region is in order. As early as the 1840s and 1850s, distinct regional stories existed in America. New Englanders associated with a “cozy world of pastoralism and domesticity, of white steeples and village greens, safe from the intrusions of urban hustle and working-class Catholics.” White southerners created a “tale around the issue of slavery, . . . by celebrating the peculiar institution as the bedrock of a more humane society than that of Northern industrial cities.”⁴³ The Northwest Ordinance of 1787 created a new region that was populated by people who migrated westward from the eastern states and northward from southern states and immigrated from western Europe.

How could regionalism possibly develop for this diverse group of people?

Contrary to a common, present-day perception of the Midwest, Cayton and Gray note that

many people saw the Midwest as malleable, as a place of liberation from tradition and a source of enormous energy for change, both of which were made possible by a unique combination of place, capitalism, and nationalism. . . . Shakers, Mormons, English reformers, African Americans and a host of others tried to mold parts of the landscape to their purposes. Often harassed by their neighbors, they were nonetheless part of the extraordinary complexity of life in the region.⁴⁴

The region began as a land of comparative foreignness in language, food, customs, and religion as people with different backgrounds merged with a common goal. Unlike New England and the South, the Midwest did not strive for individuality and alienation. Instead, the region identified with the market economy and nationalism.⁴⁵

The story that resulted was one of “energy and optimism” and “rapid and inexorable progress.” As Cayton and Gray describe it, “exaggerated and contested, the

⁴³Cayton and Gray, 9.

⁴⁴Ibid., 10.

⁴⁵Ibid., 5-10.

story of the Old Northwest was a narrative of success: We came, we saw, we conquered, we improved, we are deservedly enjoying the fruits of our labor.”⁴⁶ Midwesterners adopted a theme of tenacity and hope. The landscape in the region was harsh, but instead of slavery, as in the South, midwesterners boasted the availability of honest, hard work for everyone. This was an “honorable” claim that midwesterners were proud to tout and which they believed distinguished them from other regions.

Cultural ideas of pastoralism are typically associated with the Midwest. Indiana historians are wont to portray the state as conservative, traditional, and unchanging. While working for Conner Prairie Pioneer Settlement, a living history museum north of Indianapolis, John Lauritz Larson saw a central problem with interpretation at such a venue--that the American frontier did not have a “folk culture” extending back for generations as did the Scandinavian museums after which Conner Prairie had been modeled. The American Midwest was too new; its “regional culture was the product of a complex process that had only just begun in Indiana in 1836.” In trying to discern the regional culture, the museum interpreters needed to look for “something very recently conceived, still embryonic, and scarcely viable.”⁴⁷ Larson colorfully explains that

the American frontier by 1800 was peopled by light-footed men and women who claimed for themselves the right to invent a new life, a new kind of community, one that may or may not reflect the habits and folkways to which they were born. Americans played with unpredictable cards, the deck shuffled by acts of immigration and stuffed full of jokers dealt by a revolution that promised literal self-creation to all who believed in and swore allegiance to the new republican experiment. What did this mean to a restless, mobile, semi-subsistence population wandering ungoverned (perhaps ungovernable?) through trackless interior forests?⁴⁸

⁴⁶Ibid., 11.

⁴⁷Larson, 70.

⁴⁸Ibid.

Turning to the more specific history of the Wabash River Basin, is there a distinct culture that grew from the mixture of people and place? What is the place that history created? A regional narrative with a focus on flooding in the Wabash River Basin will explain how regionalism contributed to the change over time. While Indiana and Illinois historians mention flooding on the Wabash River and tributaries when recounting state history, flooding has not been their focus.

Indiana historians have noted that the region is “blessed” with natural resources, including water. In *Indiana in Transition* (1968) Clifton J. Phillips describes Indiana as possessing “an almost inexhaustible plenitude of natural wealth in its soil, forests, lakes, rivers, and streams, as well as beneath the surface of the earth.”⁴⁹ Below the ground, Indiana possessed coal, natural gas, petroleum, limestone, clay, sand, and mineral waters. These resources drew settlers and entrepreneurs to the state.

Hardwood lumber production in the state began as an important industry, with the state ranking as the fifth highest producer of hardwood boards in the country in 1879. Production peaked in 1899 when 1,036,999 board feet were produced by Indiana lumber companies, but notably, by 1904, production plummeted to 563,853 board feet because of dwindling resources.⁵⁰ Private citizens and scientists organized to stop deforestation of the state, noting the effect on soil erosion and flooding. Professor Glenn Culbertson of Hanover College spoke at an Indiana Academy of Science conference in 1908 on the topic of “Deforestation and Its Effects among the Hills of Southern Indiana” and called

⁴⁹Clifton J. Phillips, *Indiana in Transition: The Emergence of an Industrial Commonwealth, 1880-1920* (Indianapolis: Indiana Historical Bureau and Indiana Historical Society, 1968), 181.

⁵⁰*Ibid.*, 214, compiled from R. V. Reynolds and A. H. Pierson, *Lumber Cut of the United States 1870-1920* (United States Department of Agriculture, *Bulletin No. 1119*, 1923), 30-33, and Henry B. Steer, *Lumber Production in the United States, 1799-1946* (United States Department of Agriculture, *Miscellaneous Publication No. 669*, 1948), 11-13.

for “planting tens of thousands of acres of trees in southern Indiana at state expense.”

The efforts of Culbertson and other key individuals, such as John P. Brown of Connersville, who published the journal *Arboriculture*, and Professor Stanley Coulter of Purdue University, a botanist and active member of the State Board of Forestry, led to the Indiana General Assembly officially designating Arbor Day as an annual celebration in 1913.⁵¹

While notable accomplishments were made to reverse exploitation of natural resources in some areas, such as forestry, entrepreneurs used other natural resources until gone. When one resource no longer produced a profit, entrepreneurs moved on to other resources. Geologists estimated that more of Indiana’s natural gas supply was wasted than judiciously used.⁵² Drillers found natural gas in 1876 at Eaton (near Muncie) which developed into a full-blown boom by late 1886. Indiana historian Peter T. Harstad tells of the spectacular events associated with “bringing in of a well”:

... especially when it was accomplished by dropping nitroglycerin down the drilled-out hole and igniting it. When the result was a roar of pressurized gas, belches of smoke, and flames taller than elms, Sunday afternoon audiences went home delighted. . . .

At Anderson a flaming archway spanned the street near the train depot. Gas was also pumped into the White River and ignited so that a gigantic flambeau appeared to burn out of the water. . . .⁵³

Natural gas production peaked in 1900, but the supply quickly diminished. By 1906 production was less than a quarter of that in 1900.

This cycle of boom and bust is significant in the history of Indiana industrialism—Indianans simply adjusted and moved on to the next big thing. At that

⁵¹Ibid., 214-215.

⁵²Peter T. Harstad, “Indiana and the Art of Adjustment” in *Heartland: Comparative Histories of the Midwestern States*, ed. James H. Madison (Bloomington and Indianapolis: Indiana University Press, 1988), 174 (page citations are to the first Midland Book edition, 1990).

⁵³Ibid., 173.

point in time, the next big thing was automobiles. Elwood Haynes, who was “a science teacher caught up in the gas boom at Portland, Indiana,” provides one example. Haynes invented a meter for specific use with the natural gas business, and he continued this entrepreneurial trend by building an automobile, patenting alloys, and becoming Kokomo’s foremost industrialist.⁵⁴

The economic history of Indiana also echoes this cycle of boom and bust. In the early 1800s Indiana farmers and townspeople benefited from access to markets beyond the state and region. This access was possible via keelboats traveling the Wabash River and tributaries to connect with the Ohio River and Mississippi River. The Wabash River Basin, however, did not have easy access to the Great Lakes as did people in the northern reaches of the state. Thus was born the Mammoth Internal Improvements Act of 1836, which “called for alteration of Indiana’s drainage system with canals, locks, aqueducts, and dams to make the major river systems navigable and provide outlets to Lake Michigan and Lake Erie.” Indiana made plans to construct the Wabash and Erie Canal that would provide a connecting route from Lake Erie to the Ohio River. Construction on the canal began near Fort Wayne, Indiana, in 1832 after a series of delays to obtain land grants and employ the necessary engineers and thousands of Irish immigrant workers. The project expanded after completing a short section of the canal between Fort Wayne and Huntington, with Indiana passing the Mammoth Internal Improvements Act of 1836, incurring significant bond debt, and in typical Indiana style, celebrating profusely.⁵⁵

⁵⁴Ibid., 174. Haynes International, Inc., remains today a major manufacturer of steel and alloy products located in Kokomo, Indiana.

⁵⁵James H. Madison, *The Indiana Way: A State History* (Bloomington and Indianapolis: Indiana University Press, 1986), 84-85 (page citations are to the first Midland Book edition, 1990).

The “scheme,” financed by a ten-million-dollar loan, bankrupted the state after the economic Panic of 1837. According to Paul Fatout, the plan was “conceived in madness and nourished by delusion.”⁵⁶ Interest alone on the borrowed money amounted to ten times the state’s revenues from taxes. Harstad claims that “men and money succumbed to the environment. The resulting political and fiscal embarrassment affected Indiana permanently.”⁵⁷ Indiana legislators changed the constitution in 1851 to prohibit the state from contracting debt, except to correct “casual” revenue deficits, pay interest on existing debt, to repel invasion or suppress insurrection, or if threatened, to provide public defense. The state did complete the Wabash and Erie Canal as far as Evansville in 1853, “making it the longest canal in the country.” Although the “southern section was often inoperable and never attracted much traffic,” the section above Terre Haute provided an “important gateway for shipping agriculture products to northeastern markets.”⁵⁸

Indiana lagged behind other states in the Old Northwest (especially Illinois and Ohio) in terms of industrialization. But, Indiana’s “growing network of rail transportation, together with accumulating knowledge and increased exploitation of its natural resources” set the stage for later rapid expansion of the industrial sector of the economy.⁵⁹ The gap between gross value of agricultural products and the value added by manufacture was finally virtually closed in the federal census year 1920 (reflecting the production year of 1919). Phillips attributes the emergence of Indiana as a leading industrial state to the following four major factors:

⁵⁶Paul Fatout, *Indiana Canals* (West Lafayette, Indiana, 1972), 76, quoted in Harstad, 169.

⁵⁷Harstad, 169.

⁵⁸Madison, 84-85.

⁵⁹Phillips, 271.

(1) large quantities of agricultural and forestry products which furnish the raw materials for manufactures; (2) deposits of mineral resources, especially abundant and cheap fuels such as coal, natural gas, and petroleum . . . ; (3) excellent transportation facilities with a dense network of railroads crisscrossing the state . . . ; (4) Indiana's fortunate geographic location at or near the center of the population of the United States and directly in the path of a large share of east-west commerce, with wide access to markets.⁶⁰

Changes in methods and the nature of manufacturing also contributed to Indiana's growing economic successes at the turn of the twentieth century. Sources for power switched from water to steam, and eventually to electrical, increasing horsepower and production possibilities. Production shifted from processing local raw materials to manufacturing durable goods. The third change was a regional shift. In the last quarter of the nineteenth century, the early manufacturing centers along the Ohio River declined in importance, and the central and northern counties became more heavily industrialized. Unfortunately for the economy of the Wabash River Basin, this shift continued northward. By 1914 East Chicago in Lake County ranked second in the state based on the value of its manufactured products, ahead of older industrial cities such as South Bend, Evansville, Fort Wayne, and Terre Haute. By 1919 Indianapolis held onto first place, but Gary took second place. Other important industrial cities by 1919 were Hammond, Anderson, Kokomo, Michigan City, Muncie, Mishawaka, Elkhart, Marion, Richmond, and La Porte, reflecting the northward movement.⁶¹

Slaughtering and meat packing was the leading industry in Indiana by 1899. Although Hammond, Indiana, was the earliest center for this type of enterprise, when J. Ogden Armour moved operations to Chicago in 1903, Indianapolis became the new center. The Union stockyards and facilities, such as Kingan and Company, were located

⁶⁰Ibid., 274-275.

⁶¹Ibid., 275-277.

southwest of downtown Indianapolis near White River. Industries related to flour and gristmill products also boosted the economy. Indiana was second to New York in production of starch in 1889 and 1899. The National Starch Manufacturing Company, which according to William F. Piel, Jr., vice president of the corporation, controlled about 65 percent of the American market, also set up shop southwest of downtown Indianapolis on the banks of White River. Tin, paper, strawboard, and automobiles were some of the other important early industries.⁶²

Who were the people who came to Indiana, and how do they contribute to an understanding of the region? Certainly, opportunities to start a business or find employment with the plethora of existing industries drew people to the state. Indiana Governor Thomas R. Marshall (Democrat, 1909-1913) observed that “the Hoosier did not come from another planet, nor even from another continent.” Harstad notes that Marshall’s assessment agreed with the United States census and modern scholarship. Most Hoosiers up to 1850 came from eastern states, but the National Road seemed to serve as a dividing line distinguishing the demographics in the northern portion of the state from the southern portion. Settlers in the southern portion came largely from Virginia, the Carolinas, and Kentucky, while northern settlers came from New England, New York, Pennsylvania, and Ohio. Southern settlers were “southern in thought” and “quite inclined to let well enough alone.” Northern settlers were more typically “liberty-loving” and “always experimenting.”⁶³

Harstad explains that in 1850 southern-born settlers in Indiana “comprised 44.0 percent of the population . . . far above the average of 28.3 percent for the Old Northwest

⁶²Ibid., 280-285.

⁶³Thomas R. Marshall, *Recollections of Thomas R. Marshall, Vice-President and Hoosier Philosopher. A Hoosier Salad* (Indianapolis, 1925), 34-36, quoted in Harstad, 163.

as a whole,” representing a sharp contrast between the demographics of Indiana and the rest of the Old Northwest.⁶⁴ Indiana’s population was decidedly more southern in origin; however, “some of the people who migrated northward into Indiana did so . . . to escape certain features of southern civilization.” For example, the population included fugitive and emancipated slaves (11,000 in the 1850 census) and Quakers from North Carolina.⁶⁵

Whites who entered the state were predominantly farmers and by 1850 occupied the entire state, except the Kankakee Swamp, with a population of at least six people per square mile.⁶⁶ Harstad describes the result, as follows:

These people altered forever the natural community of living plants and animals by felling centuries-old trees, plowing the earth, and replacing the native fauna with bovines, swine, horses, and sheep of European origin. They planted a mixed bag of seeds and tubers that plant geneticists had developed over a period of centuries on both sides of the Atlantic. . . . By the end of the century they were plowing, planting, cultivating, and harvesting with increasingly efficient implements manufactured in the region . . .⁶⁷

Indiana’s foreign-born population grew from 54,426 in 1850 to 141,474 by 1870, and peaked at 159,663 in 1910, but the foreign-born never comprised more than 10 percent of the total population. In 1850 more than 50 percent of the foreign-born population was German, so that homogeneity existed even among the foreign-born. Second to German immigrants were Irish immigrants.⁶⁸ James H. Madison claims that

this population homogeneity was central to many aspects of the state’s history, doubtless helping to reduce conflict and to make change more evolutionary rather than revolutionary or disruptive, to give Hoosiers a

⁶⁴Gregory S. Rose, “Hoosier Origins: The Nativity of Indiana’s United States-Born Population in 1850,” *Indiana Magazine of History* 81 (September 1985): 212-214, quoted in Harstad, 167.

⁶⁵Harstad, 167.

⁶⁶*Ibid.*, 167-168.

⁶⁷*Ibid.*, 168.

⁶⁸Madison, 173-174.

propensity to conserve and to cling to traditions rather than adopt radically new political, economic, or social arrangements.⁶⁹

The political history of the Wabash River Basin can best be described as a mix of conservatism and progressivism that blended into moderation. Indiana Governor Samuel M. Ralston (Democrat, 1913-1917) is often quoted as saying, “the citizenship of Indiana has, in truth and in fact, always been conservatively progressive.”⁷⁰ Illinois and Indiana, the two states that share the majority of the Wabash River Basin, are part of the larger section known historically as the Old Northwest, which originated from a common charter, the Northwest Ordinance. Daniel J. Elazar offers further insight on this commonality in “Influences on Political Values and the Wabash Basin” (1964):

The majority of the present political institutions and attitudes present within the Wabash Valley states have developed from the early settlers’ applications of the charter’s provisions to local conditions at the time of settlement and from the additions to that pattern engendered through the addition of various cultural “currents,” both American and European, whose representatives have settled in the various parts of the section.⁷¹

Indiana was a “swing state” for national politics in the late nineteenth and early twentieth centuries leading to many incidents of political corruption and raucous campaigns.

According to Madison, “politics gave Indianans a common interest and bond, a distinctive culture to claim as their own.”⁷² Elazar notes several competing factors that affected the political culture and contributed to Indiana’s “swing state” reputation: the blend of north and south mentalities in the Wabash River Basin, conflicts brought by “the advancing urban-industrial frontier,” the political culture of the Ohio Valley where “politics is a system of favors, friendships, and rewards, in which ‘issues,’ as such, are

⁶⁹Ibid., 168-169.

⁷⁰Ralston to Taggart, February 14, 1914, Ralston Papers (Lilly Library, Indiana University, Bloomington), quoted in Phillips, 128, and Madison, 221.

⁷¹Daniel J. Elazar, “Influences on Political Values and the Wabash Basin,” in Boyce, 122.

⁷²Madison, 218.

unimportant,” and the higher than average multiplicity of governments (i.e., state, counties, districts, townships, and cities) present in the Wabash River Basin.⁷³

Despite the active politics of Illinois and Indiana, the position of the basin itself negatively affected the political culture and became a “handicap” for the region. In many respects, the basin has been isolated from the Midwest section’s larger concerns. Except in the basin’s northeastern reaches, it is not the home of either big business or big labor. Ethnically and racially, it is more homogeneous than the Midwest section as a whole. It lacks major urban centers, and it is not the scene of much urban-rural conflict. Elazar concludes that “in practical political terms, being out of harmony with one’s section means lack of ‘leverage’ in the political process.”⁷⁴

When the Wabash Valley Advisory Committee completed its study of the basin in the early 1960s, the committee discovered that most efforts to develop the basin had occurred in the southern reaches. For example, when residents in the Embarrass River Basin counties in Illinois had been contacted to generate support for flood prevention that would benefit them, they were only interested in finding a solution for their own problems instead of participating in area-wide improvements. Similarly, residents in the northeastern portion of the basin had been “conspicuously absent” from organized basin-wide activities. The committee report concludes that these real-life examples provide “common-sense evidence” that “fundamental socio-political differences” exist and result in barriers when organizing basin developments.⁷⁵

Analysis of the political culture in Indiana reveals another convoluted layer to add to any understanding of the Wabash River Basin. Madison quips that “Indiana’s political

⁷³Elazar, 128, 132.

⁷⁴Ibid., 128.

⁷⁵Ibid., 135-136.

traditions were still waters that ran deep and were not easily diverted even if storms roughed the surface.”⁷⁶ There is certainly a depth to Indiana’s political culture that deserves more exploration than can be covered in this study.

The characteristics of midwestern culture are evident in the Wabash River Basin—tenacity, hopefulness, honesty, and a strong work ethic can be used to generally describe the region’s inhabitants. While it may not be possible to claim that there is a distinct regional culture attributable to the Wabash River Basin, the layers studied portray common beliefs, attitudes, and values with regard to natural resources. People in the region tended to use natural resources until exhausted, and they viewed the rivers as an obstacle to battle and overcome. A dichotomy existed between basin inhabitants and nature wherein people needed the resources for livelihood (e.g., drinking water and raw materials for manufacturing) but abused those same resources to the point of endangerment. By the end of the nineteenth century, White River no longer provided potable water and hardwood forests had been nearly depleted resulting in land erosion and increased drainage and flooding problems.

Rivers in the Basin

Another characteristic of the Wabash River Basin is the commercially non-navigable status of its rivers. Arguably, a navigable river system would join together river basin residents, business owners, and politicians to ensure the continued success of the river. People would work together not only to maintain the bottoms and banks for navigation, but also possibly to protect the river from pollution, to conserve floodwaters for irrigation, and to develop the river basin for hydropower needs. One might assume that a navigable river becomes an important component of the affected society and is

⁷⁶Madison, 228.

recognized as crucial to its livelihood, if not survival. If a river is not navigable, the relationship between people living in the basin and the river has different dimensions.

By early nineteenth century standards, the Wabash River and many of its tributaries were navigable by means of canoes and flatboats. With the advent of steamboats, the river's navigability came into question. Indianans were not too concerned because they had turned their focus and hopes toward the possibility of a fabricated river. As Madison records, "the success of New York's Erie Canal, completed in 1825, sparked a canal boom in the Old Northwest."⁷⁷ But, the economic depression that began in 1837 stopped the canal projects and bankrupted the state. Madison asserts that "Indiana's reputation suffered a blow that stung long after the wooden canal boats and locks had rotted."⁷⁸

Neither natural rivers nor fabricated rivers satisfied the transportation and economic needs of the Wabash River Basin. Roads and railways brought much greater success. The National Road was completed through Indiana in the 1830s, linking Indiana to the East Coast and eventually to the west. The Michigan Road connected Michigan City, Indiana, at the northwestern border to Madison, Indiana, at the southeastern border by 1836, but these early roads were rough.⁷⁹ In 1848, a letter written from Indianapolis to LaPorte humorously warned that "the roads are not now *navigable* and this [letter] may be long in reaching you."⁸⁰ By the mid-1850s, "eighteen railroad companies had laid over 1,400 miles of track in Indiana," and although many were local companies, the

⁷⁷Madison, 82.

⁷⁸Ibid., 84-85.

⁷⁹Ibid., 81.

⁸⁰J. W. Hunt to John B. Niles, December 14, 1848, John B. Niles Papers (Lilly Library, Indiana University, Bloomington), quoted in Madison, 82.

railroads soon merged with regional or national companies to provide the connections the Wabash River Basin so desired.⁸¹

These early beginnings are important because, although embarrassing and financially harmful, they reflect the “forward-looking optimism, the belief in progress, the intense desire to lift Indiana out of the mud and leave behind the isolation of pioneer life.”⁸² This brief history also sheds light on how Indianans viewed their rivers. If the river did not help them in their quest for prosperity, they turned to something else that would.

The rivers in the Wabash River Basin lost power and meaning for basin inhabitants once deemed non-navigable. Reaffirming the notion that the rivers were non-navigable translated into benefits for property owners and the state, as reflected in legal cases. In *Ross, et al. v. Faust, et al.*, a landmark Indiana Supreme Court case decided in 1876, the court proclaimed White River a non-navigable river.⁸³ The case involved two riparian property owners. When Faust removed gravel from the bed of White River in front of Ross’s property, Ross filed a lawsuit in the Marion Circuit Court claiming that Faust had trespassed on his property and unlawfully hauled away gravel. After the trial court found in favor of Faust, Ross appealed.

The appeals court’s written decision presents the three classes of rivers in the United States: salt-water rivers in which the tide ebbs and flows, fresh-water rivers that are navigable for vessels used in interstate commerce, and fresh-water rivers which are not navigable for vessels used in interstate commerce. The court asserted that the bed of the first class of rivers was publicly owned land, the bed of the second class of rivers

⁸¹Madison, 154-155.

⁸²*Ibid.*, 85.

⁸³*Ross, et al. v. Faust, et al.*, 54 Ind. 471 (1876).

located in the “North-West Territory” was in doubt, and the bed of the third class of rivers was owned by the riparian property owner to the “thread” (or center) of the stream. The question reviewed by the Indiana Supreme Court was to which class White River belonged, which in turn would decide whether the riparian property owner’s title extended to the edge or to the thread of the stream. In other words, if ownership did not extend to the thread, then trespassing and unlawful taking did not occur. *Ross* raises an additional piece of evidence in support of the navigable status of the river—the United States surveyor of public lands had excluded the beds of rivers, and the property owner did not pay for the land to the thread of the stream. Scoffing at the ability of the surveyor to determine whether the river was navigable and dismissing the lack of payment, the court states that it “knows, judicially, as matter of fact, that White river, in Marion county, Indiana, is neither a navigated nor a navigable river.”⁸⁴ This ruling ignored applicable federal law under the Northwest Ordinance of 1787 that provides, “whether a river is navigable was an issue of fact and dependent upon whether [the] river was available and was susceptible for navigation according to general rules of river transportation at [the] time Indiana was admitted to the Union, and it does not depend upon whether it is presently navigable.”⁸⁵

As Jacob Piatt Dunn notes, when the court decided in this way—that White River was non-navigable and that the title of riparian property owners extended to the thread of the river—the court overstepped its bounds and changed the course of the river. Dunn portrays the importance of public access to pump sand and gravel from the bed of the

⁸⁴Ross, 476.

⁸⁵Dunn, 1:22; State ex rel. Indiana Department of Conservation v. Kivett, 95 N.E.2d 145 (Ind. Supreme Court 1950), 146.

river in terms of both improving navigability and saving the state the cost of purchasing needed materials:

They take out the material to an average depth of fifteen feet, and in the eleven years that this work has been in progress over three miles of Indianapolis river front has been made actually navigable for any kind of river craft. . . .

. . . In fact, thousands of dollars have been paid to riparian owners for gravel from the river bed for public uses, when the river bed should justly belong to the state. . . . But of all stupid aberrations of public policy, none ever was more absurd than this abandonment of public right by a hasty and ill-considered Supreme Court decision.⁸⁶

By claiming the river was non-navigable, the state distanced itself from any responsibility to maintain the bed of the river (i.e., remove sand bars or debris impeding navigation), reaffirmed its sovereignty, and relied on a “common law rule [that] would best subserve the public peace and protect from violence.”⁸⁷ The state also wanted to avoid interfering with perceived rights of individual property owners. For years following this ruling, numerous cases in Indiana, as well as state courts throughout the Midwest, cited this 1876 case. Courts debated the issue of navigable status and its impact on private versus public ownership over and over, and at times, the courts decided that portions of the Wabash River or one of its tributaries were navigable while other portions remained in the non-navigable category. The legal “sand,” like the sand in White River, shifted back and forth. It was not until 1950 that the Indiana Supreme Court questioned the 1876 ruling and adamantly reinstated White River to its legally recognized navigable status.⁸⁸

Regardless of its legal status, after the *General Hanna* grounded in 1831, in the minds of most Indianans the Wabash River and its tributaries remained non-navigable for

⁸⁶Dunn, 1:21-22.

⁸⁷Ross, 477.

⁸⁸State v. Kivett.

commercial purposes. Even the fabricated rivers had been abandoned by the late nineteenth century in favor of roads and railways. What did this non-navigable status mean in terms of the relationship between people and the rivers? How did it affect perception of the rivers? As Phillips relates, Indianans appreciated natural resources as long as a profit could be achieved. Once the rivers lost their capacity for navigation at the level necessary to keep up with the growing market economy, the rivers were no longer a benefit.

This loss of prestige added to the nuisance of repeated flooding and spelled further neglect for the rivers. The use of the rivers as a dump by slaughterhouses, industries, and humans provides another piece of evidence of the relationship that had developed. The interconnected relationship was unfolding into chaos for the region.

Regional Comparisons

If the relationship with the rivers in the Wabash River Basin is compared with the relationship in other river basins, similarities and differences appear that provide additional explanation about the history of flooding in the Wabash River Basin. A number of historians have reviewed flooding in other river basins that will be useful for this analysis. Three examples of studies involving midwestern rivers that are non-navigable, except by canoe or rowboat, are the Elkhorn River Basin, Kansas River Basin, and the Great Miami River Basin. Two examples of navigable rivers, one being the Sacramento River and the second involving the Mississippi River Valley, also provide insight.

Todd M. Kerstetter presents the history of responses to flooding in the Elkhorn River Basin in Nebraska from 1823 to 1940. Like the Wabash, the Elkhorn River and its

tributaries regularly flooded the valley. Initially, settlers took defensive actions, moved on to offensive actions, and then tried a combination of both. Defensive actions meant adapting to flood conditions—they rebuilt their homes, they built boats, and they learned how to cope during times of high water. Offensive actions included building levees, ditches, and dams and instituting a flood warning system. Later, more aggressive actions included straightening or combining river channels, dredging the river, and building stronger and higher levees. Kerstetter ends his historical account with the year 1940 when federal government engineers conducted a study to determine flood control needs, but basin residents failed to utilize the information gleaned from that study. Kerstetter foreshadows that “a scant four years later, nature and the Elkhorn would twice send floodwaters, the highest and most destructive yet, onto the floodplain. Those floods would draw serious attention and deserve their own story.” Kerstetter notes that as humans encroached on the flood plain, “floods became increasingly devastating,” but from a historian’s perspective, “examining the *response* [emphasis added] to floods also casts light on human nature and the American political system.”⁸⁹

Dale E. Nimz reviewed the history of the Kansas River Basin, concentrating on “human aspirations to improve, control, and manage” the river. Its history also includes repeated flooding, and Nimz details the major flood events in 1903 and 1951 and some key projects to control flooding by means of dams and floodplain management. Similar to the Wabash River and its tributaries, the Kansas River did not meet transportation or power needs. The river became polluted and caused health concerns that were multiplied when the river flooded. Unlike responses in the Wabash River Basin, Kansas political

⁸⁹Todd M. Kerstetter, “High Water: Flooding in the Elkhorn Basin, 1823-1940,” *Nebraska History* 76, no. 4 (1995): 176-187.

leaders and business owners called upon the federal government for assistance following the flood of 1903. As part of President Franklin D. Roosevelt's New Deal program in the 1930s, the Kansas River Basin underwent extensive changes to control flooding.

Through careful research, Nimz reveals that "the proposal for dams and reservoirs in Kansas originated in the 1930s because Kansas City business and railroad interests did not want levees that would interfere with their operations in the floodplains." Therefore, business concerns directed public policy, and as Nimz asserts, "those who dreamed of improving and then controlling the Kansas River agreed on the river they wanted." The 1951 flood highlighted the one-sided interests addressed in the agreement when the Kansas River became "wild," "rampaging," and "uncontrolled."⁹⁰

The Great Miami River Basin in southwestern Ohio suffered severe damage and loss during the 1913 flood. In "Taking Engineering by Storm" (2004), science and technology historian Trudy E. Bell presents her study of the responses to the flood in the Great Miami River Basin and finds that within two months after the flood, the Dayton, Ohio, city commission decided that

the federal government would not act to prevent a recurrence of a future disastrous flood in the Miami Valley. So, it was up to the citizens themselves to raise funds and begin work. The commission established a flood-prevention fund as seed money to begin financing engineering surveys, plans, and construction contracts for a fix-it-forever, flood-control program. After a monumental campaign of only 10 days, the fund had received pledges for more than \$2 million (in 1913 dollars) from 23,000 subscribers.⁹¹

The city commission of Dayton also hired a thirty-five-year-old engineer from Memphis, Tennessee, Arthur E. Morgan. Although young, Morgan had an impressive resume, and

⁹⁰Dale E. Nimz, "Rivers That Work: Environment, Engineering, and Policy Change in the Kansas River Basin" (PhD diss., University of Kansas, 2003), 5, 381, and 384.

⁹¹Trudy E. Bell, "Taking Engineering by Storm," *The Bent of Tau Beta Pi* (Winter 2004): 15-22, 18.

armed with instructions to “find a way out,” he rolled up his sleeves.⁹² Instead of sending “dirt flying” as the commission had hoped, Morgan warned that a localized response would not solve the problem in the basin. After completing detailed studies, surveys, and calculations, he presented eight alternatives to the city commission in a report on 3 October 1913. The commission approved Morgan’s plan for a system of five “dry” dams (what Morgan called “detention basins” or “retarding basins”) that would accommodate the Miami River’s tendency to produce flash floods and would control runoff 40 percent greater than the runoff in March 1913, a percentage calculated to be “beyond all possibility.”⁹³ Despite delays due to World War I and additional funding needs, which local bond issues satisfied, the Miami Conservancy District completed its dams in 1923. Bell ends this success scenario, as follows:

The dams have held back floodwaters more than 1,500 times. In 1937 and 1982 (when rain and flood stages approached the magnitude of 1913) and in 1959 (year of highest watershed runoff in the valley since 1913), the areas protected—including downtown Dayton—never flooded.⁹⁴

A variety of responses to flooding occurred in these cases of non-navigable rivers, all with flooding histories similar to the Wabash River Basin. Two ended in failures to achieve the desired flood control, and one ended with success. All reflect a mindset of local control. Even when folks in the Elkhorn River Basin and Kansas River Basin reached out for federal assistance, they were unwilling to relinquish control for implementing plans. All of these cases are similar in that they dismissed the rivers for as long as they could before taking more critical steps—the rivers were a nuisance rather than an asset. But, can this also be said of cases involving a navigable river?

⁹²C. A. Bock, *History of the Miami Flood Control Project* (Dayton, Ohio: The Miami Conservancy District, 1918), quoted in Bell, 19.

⁹³Bell, 20.

⁹⁴*Ibid.*, 21.

Sacramento is located at the junction of the Sacramento and American Rivers, with a long history of flooding challenges. The founders of Sacramento, who were first and foremost real estate merchants, chose the site because of its natural advantages on the rivers. This location soon became a distinct disadvantage. Yet, once the city boosters believed they could profit from the location, they believed they could profit despite the location. Andrew C. Isenberg notes in “Banking on Sacramento” (2006) that levees were a politically popular flood control method because these relatively simple actions boosted public support. According to Isenberg, Sacramento survived its flooding problems because the city government, “lacking even a shadow of legitimacy, intuited that a flood control project might boost public support and legitimize the municipal government.”⁹⁵

Isenberg describes a situation where nineteenth century city governments were

faced with an ecological dilemma: to mitigate the threat to their urban environment by levying taxes and creating levees, they had to restrain the commerce that was the source of prosperity. Yet municipal public works projects, despite their expense, imparted significant political benefits to city governments: such projects conferred political legitimacy on governments that had been initially conceived as little more than real estate development companies.⁹⁶

When dealing with a navigable river, profit seekers controlled decisions more so than with non-navigable rivers—the stakes were higher.

Flood control for the Mississippi River has a long history in part because of its importance as a navigable river with shipping ports for the United States. Matthew T. Percy studied the 1927 flood on the Mississippi River and the resulting federal Flood Control Act of 1928. Although the 1927 flood devastated the Lower Mississippi Valley,

⁹⁵Andrew C. Isenberg, “Banking on Sacramento: Urban Development, Flood Control, and Political Legitimization, 1848-1862” in Andrew C. Isenberg, ed., *The Nature of Cities* (Rochester, New York: University of Rochester Press, 2006), 116-117.

⁹⁶*Ibid.*, 105.

President Calvin Coolidge ignored the pleas for assistance from Louisiana. The state of Illinois had suffered losses during this flood as well, and it was Chicago Mayor William Hale “Big Bill” Thompson who took the lead and “kicked off a campaign calling for the federal government to assume full financial responsibility for flood control on the Mississippi River.”⁹⁷ It took a strong political figure to catch the attention of the public and legislative committees. This turn of events also suggested the difference in federal political pull in the North versus the South. Percy follows the progress of this law through congressional committees and explains the proponents’ battles with President Coolidge, whose main concern was keeping a balanced budget. Thirteen months later, the United States Congress passed the 1928 Flood Control Act, albeit a significantly changed law from the original intent. Implementing the law proved to be another challenge due to the 1929 economic collapse, “years of litigation initiated by the [local] residents,” and the “gradual ‘unwinding’” of the plans of the Army Corps of Engineers’ Major General Edgar Jadwin, who had worked closely with President Coolidge.⁹⁸

The responses to flooding along the Sacramento River and Mississippi River differ only in some respects from responses in the non-navigable river basin examples. The fact that a river is navigable, even in the case of the mighty Mississippi River, does not necessarily bring the flood control action needed. As Hurricane Katrina proved in 2005, levee-only systems do not put an end to flooding. With a navigable river, there are more interested parties and, consequently, more special interests. The interested parties did not dismiss the rivers because they were an important component of the local economy; instead, they added to the chaos.

⁹⁷Matthew T. Percy, “After the Flood: A History of the 1928 Flood Control Act,” *Journal of Illinois State Historical Society* 95, no. 2 (2002): 172.

⁹⁸*Ibid.*, 172-191, 191.

These case studies show that the Wabash River Basin does not have a unique problem or that its residents have acted radically different from their neighbors. Instead, the studies confirm a widespread issue related to urban development. People settled on sites that benefited them in one or more respects while suppressing those aspects that threatened their success. Growth and success unfortunately exacerbated problems and emphasized limitations.

Summary

Following the 1913 flood, Indiana Governor Samuel M. Ralston appointed the Indiana Flood Commission.⁹⁹ This was the first organized, publicly ordained effort in Indiana to determine the cause of major floods and find ways to lessen the resulting damage. Unfortunately, according to Indiana historian Clifton J. Phillips, “no action was taken as a result of [the commission’s] deliberations.”¹⁰⁰ In the 1910s, the state was not ready to coordinate to address flooding and conserve these water resources. Water power continued to be used but only by a few small mills scattered throughout the state.¹⁰¹ Therefore, one difference in the Wabash River Basin was reluctance to organize or to seek outside assistance from the federal government or a talented engineer.

William C. Ackerman and J. H. Dawes, members of the Wabash Valley Advisory Committee in the 1960s, mention the Miami Conservancy District’s “pioneering steps undertaken in the Miami River Basin, which is the watershed immediately east of the Wabash” as “one of the milestones in integrated watershed planning and

⁹⁹*Laws of the State of Indiana, 1915*, 143.

¹⁰⁰Phillips, 216. Also see W. K. Hatt, “Flood Protection in Indiana,” *Indiana Academy of Science, Proceedings* (1914), 149-156.

¹⁰¹Phillips, 216.

management.”¹⁰² Ackerman and Dawes end with remarks reflective of the laissez-faire politics and culture of the Wabash River Basin: “The world has adopted from the Miami the concept of basin-wide planning, but it has since progressed beyond that concept of single-purpose development. Further, it has rejected the Miami concept of assessing individual property owners according to their calculated benefits.”¹⁰³

This dismissal of ideas and methods from outside sources is indicative of the regional mentality. The Wabash River Basin possessed plentiful natural resources, a strong economic base, a boisterous political culture, and a hopeful and growing population. The price tag of \$29,658,000 that accompanied the 1913 flood was small in comparison with the benefits and possibilities offered by the basin. The inhabitants were trying to develop the land, but they were paying dearly in terms of millions of dollars annually in the form of damage repairs, loss of property, and loss of lives. The cost of displacing one’s family to move elsewhere also must have outweighed these costs.

The people who settled in the Wabash River Basin, in both the southern and northern portions, melded together to create a regional mentality that controlled decisions affecting the region and its relationship with the outside world. Basin inhabitants felt excluded from other regions that were part of a navigable river system as evidenced in part by the canal project that had a long-lasting impact on the culture. The residents saw themselves as isolated from other regions and, consequently, abandoned the non-navigable river, turning instead to the possibilities of canals, road, and railroads. Arguably the combination of alienation and eternal optimism overrode sound flood

¹⁰²William C. Ackerman and J. H. Dawes, “Water Management and the Wabash Basin” in Boyce, 173.

¹⁰³Ibid., 173.

control decisions, but the basic need to secure a living from this land more likely drove decisions.

Madison and other Indiana historians have argued that the culture of Indianans inhibited change—they desired continuity. Yet, viewing the landscape of the Wabash River Basin as “history” reveals a changing landscape, one in which inhabitants cut down hardwood forests, extracted natural gas, mined coal, quarried limestone, drained swamps, filled in ravines, built levees, rerouted rivers, dug canals, and constructed bridges, roads, and railroads.¹⁰⁴ The environmental history of Indiana denies the argument of continuity. Basin residents maintained a constant relationship with natural resources, but they continuously changed the landscape to meet their needs.

Historically, the relationship between people and the rivers in their towns, whether navigable or non-navigable, is one of conflict and misunderstanding—they have not understood their interdependence with their rivers. This misunderstanding is more prominent in river basins where the river is non-navigable because the river holds less prominence. The common theme is that the relationship with rivers has been a growing process. Settlers did not understand the river’s nature and cycles when they first arrived. They did not understand that expansion into the floodplains, along with building levees and bridges, would increase devastation from flooding. They did not understand that dumping their waste into the river would cause health problems. Certainly, in the nineteenth century, people were not familiar with concepts of ecological systems. The early settlers did quickly learn that flooding along the Wabash River and its tributaries

¹⁰⁴D. W. Meinig, “The Beholding Eye: Ten Versions of the Same Scene” in *The Interpretation of Ordinary Landscapes: Geographical Essays*, ed. D. W. Meinig (New York: Oxford University Press, 1979), 33-47.

would frequently occur, but they accepted that challenge and clung to the advantages of the region.

Flooding impacted regional development in the Wabash River Basin in terms of the dollars spent on flood prevention and recovery, in terms of how the region saw and utilized its natural resources, and in terms of the effect on the culture of the place.

Moving from the broader, regional perspective to take a closer look, the significance of the history of flooding for the common person inhabiting the place becomes apparent.

The next step in this study is an analysis of one particular place devastated by the 1913 flood—West Indianapolis. As this history shows, negative associations with flooding become an integral part of this place in the twentieth century, and Worster’s concept of “evolving human ecology” is laid bare.

CHAPTER 2: THE COMMUNITY OF WEST INDIANAPOLIS

Wherever we can point to human beings, there we can point to somebody's home—with all the kindly meaning of that word.

--Yi-Fu Tuan, *Topophilia*

Traditionally, valleys have appealed to human beings as “ecological niches” where they can find an easy livelihood with a water source, possibly a natural transportation route, rich soil for farming, and a wide variety of food available from the river, the floodplain, and the valley slopes. Yet, the valley can also shelter dangerous animals, the floodplain may be poorly drained and malarial, and the valley may be subject to flooding and fluctuating temperatures.¹⁰⁵ In West Indianapolis, the “Valley” fit this description in many ways. West Indianapolis, located on the southwestern fringe of Indianapolis, was an important community for the capital city. (See Figure 3 on page 11.) Not only was it home to the people who lived within its borders, but it was also an integral part of the economy of Indianapolis. Yet, floods plagued West Indianapolis, especially in the section nearest White River, referred to as the “Valley.”

In 1820, the Indiana state commissioners observed that the ground on the west bank of White River was marshy, low, and prone to flooding. Regardless, in the summer, a good crop of corn could be grown in this river bottomland. Nicholas McCarty, Sr., a Virginia-born merchant, purchased the land and called it his “bayou farm.” By the mid-nineteenth century, landowners and city developers recognized that this land had even greater value for railroads and industry than its agricultural use.

¹⁰⁵Yi-Fu Tuan, *Topophilia*, (Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1974), 117.

Indianapolis was becoming a major transportation and commercial center with eleven railroads entering the city from all directions.¹⁰⁶ The railroads were an economic savior for the capital city after its disappointing discovery that White River was not navigable, and thus, city and state officials wanted to capitalize on the railroads. These railroads, however, were making the city noisy, dirty, and congested. Nicholas McCarty, Jr., managed the “bayou farm” for his deceased father’s heirs, but he was also a realtor with an idea that a set of tracks to connect the incoming rail lines would divert the through freight from downtown Indianapolis. He proposed that the new line run through his property. His plans failed when workers were laid-off during an economic recession, the “Panic of 1873.” Two years later, the Mayor of Indianapolis, a Republican named John Caven, came up with a plan for the city to profit from its expanding cattle business, enlarge its tax base, provide work for the unemployed, and alleviate downtown traffic problems.¹⁰⁷ By Ordinance No. 51, 1876, the Indianapolis Common Council approved selling one-half million dollars in municipal bonds for the purpose of completing a belt rail line that would divert rail traffic around the center of the city.¹⁰⁸ In November 1877, the Union Railroad Transfer and Stockyard Company completed the belt rail line and the stockyards opened on McCarty’s property.¹⁰⁹

The community of West Indianapolis, originally known as Belmont, grew around the stockyards and railroads. The “Valley” had something to offer the people; it provided

¹⁰⁶Dunn 1:259; Madison, *The Indiana Way*, 153-157.

¹⁰⁷John Caven served his first term as mayor from 1863 to 1867 and his second term from 1875 to 1881. <http://www2.indystar.com/library/factfiles/history/indianapolis/mayors.html>.

¹⁰⁸Common Council of the City of Indianapolis, Indiana, *Journals of the Common Council of the City of Indianapolis, Indiana, from May 8, 1876, to April 30, 1877, Inclusive* (Indianapolis: Indianapolis Journal Company, City Printers, 1877), 1214.

¹⁰⁹James J. Divita, Professor of History, Marian College, *Workers’ Church: centennial history of The Catholic Parish of the Assumption of the Blessed Virgin Mary in West Indianapolis*, (Indianapolis: Centennial Committee, Church of the Assumption, 1994), 1-2; and Dunn, 1:256-261.

jobs and homes—a place to call home. By the time of the “Great Flood” in 1913, it was a working community of homes, schools, churches, neighborhood businesses, the stockyards, and railroads. Although the people who settled there found employment and a welcoming community, they soon learned that flooding would challenge them and eventually isolate them.

Places in History

Human geographer Tim Cresswell contends in *Place: A Short Introduction* (2004) that John Agnew’s three fundamental aspects that make a “meaningful location”—location, locale, and sense of place—must include “space” and “landscape.” By considering “place” from these perspectives provides a way of understanding an area “as a rich and complicated interplay of people and environment.” The central theme of place studies is a quest to answer the question of what makes a place—what factors came together to create its significance instead of just a spot on the map without meaning to its inhabitants. Looking at the relationship of riverine community members with the river will be enriched by considering those members’ sense of the place. It is important to understand how people interacted with the landscape and environment, what processes occurred that created meaning, and how powers were exercised to form relations between social groups.¹¹⁰

Cresswell claims that, ultimately, connections and change are key elements of a place. He refers to William Cronon’s case study of Kennecott, Alaska, a ghost town in south-central Alaska, which was once “one of the greatest copper milling centers in the

¹¹⁰Tim Cresswell, *Place: A Short Introduction* (Malden, Massachusetts: Blackwell Publishing, 2004), 8, 11, and 122.

world,” to explore placemaking.¹¹¹ The case of Kennecott is analogous to West Indianapolis in many ways. The connections between West Indianapolis and the Indianapolis economy, as well as the national and international economies, made through the railroads and industries drove changes that occurred there. In both Kennecott and West Indianapolis, the ecology and landscape have been irreversibly interrupted. While West Indianapolis is not a ghost town, it is a forgotten part of the city. It has been abandoned despite the fact that it was an important component of the economic success of Indianapolis. People who travel to West Indianapolis are immigrants in search of a place to begin their lives in this country. West Indianapolis has been a place to make a start, but not a final destination.

Local history often falls on two ends of a spectrum—the old-fashioned variety that is richly anecdotal and social history that deals with people as impersonal aggregates. Michael Kammen suggests that local historians find a middle ground to not only identify trends but exemplify the trends with real, flesh-and-blood individuals.¹¹² According to local historians David E. Kyvig and Myron A. Marty, a useful model for analysis and interpretation in order to see a cultural landscape more intelligently and to give order to questions about it, is to see the whole and see the parts. To do this, one must look for relationships—between buildings and open spaces, between building and building, between the cultural and the natural landscapes, between commercial and residential areas, and between old and new. Also, one must ask how natural features, such as a river,

¹¹¹Ibid., 39; and William Cronon, “Kennecott Journey: The Paths out of Town,” in *Under an Open Sky: Rethinking America’s Western Past*, William Cronon, George Miles, and Jay Gitlin, eds. (New York and London: W. W. Norton & Company, 1992), 28-51.

¹¹²Michael Kammen, “Changes and Opportunities,” in *The Pursuit of Local History: Readings on Theory and Practice*, ed. Carol Kammen (Walnut Creek, California: AltaMira Press, A Division of Sage Publications, Inc., 1996), 139.

shaped the city; how the railroad reshaped; and how an interstate highway reshaped it again. The task for the historian is to find the material traces from the past in the cultural landscape to understand and reconstruct events and ideas of earlier times.¹¹³

Who were the people that settled in West Indianapolis and what factors influenced their decision? What role did the river play in the cultural landscape of West Indianapolis? What relationship formed between the river and the residents? To answer these questions, this chapter considers both quantitative and qualitative evidence, presents an overview of the history of West Indianapolis, and introduces some of the former members of the community. Upon careful scrutiny, the factual data found in federal census records and city directories and the documented changes over time revealed by fire insurance maps can provide unexpected insight.¹¹⁴

This chapter and the next reference several sources that warrant explanation. Two sources fill in useful information not available from primary or scholarly secondary sources: “Early West Indianapolis,” compiled by the Mary Rigg Senior Citizen Group (1979), and “Social History of the ‘West Indianapolis’ Section of Indianapolis, Indiana,” written by Margaret Wolfer (1970s). Both of these historical accounts are held in the Special Collections of the West Indianapolis Branch of the Indianapolis-Marion County Public Library. These sources not only provide details not otherwise available, but they also reflect the oral history of this place as passed from generation to generation. Another secondary source referenced in this chapter is a history of the Nordyke & Marmon Company, a large employer in West Indianapolis, prepared for distribution to delegates to the Convention of the Associated Advertising Clubs of the World,

¹¹³David E. Kyvig and Myron A. Marty, *Nearby History: Exploring the Past Around You* (Nashville, Tennessee: American Association for State and Local History, 1982), 169-170 and 179.

¹¹⁴Constance McLaughlin Green, “Changes in the Community,” in Kammen, 123.

Indianapolis (1920) and held by the Indiana Historical Society. An additional source referenced is immigration and church historian James J. Divita's "Workers' Church: centennial history of The Catholic Parish of the Assumption of the Blessed Virgin Mary in West Indianapolis" (1994). Although focused on the history of the parish in West Indianapolis, Divita includes invaluable, cited information about the community's origin and members. Federal census and city directory data, as well as works by Indianapolis historians, support much of the information provided by these sources.¹¹⁵

The People and Businesses

The predecessor to West Indianapolis, the village of Belmont, developed in the 1800s on the other side of White River from Indianapolis with tree-lined dirt roads, farm lands, and wide-open spaces.¹¹⁶ The early settlers bought "donation tracts," which were tracts of land approved for sale by an Act of Congress on 19 April 1816 for the purpose of settling Indianapolis. After selecting the prime lots on higher ground for the city's downtown, the Indiana General Assembly designated less desirable lots that would be available for purchase by individual settlers.¹¹⁷

One of the earliest settlers was the Harding family. In 1820, Mrs. Martha Harding, a widow and the mother of twelve children, moved her family from Kentucky and settled on a donation tract on the banks of White River where they built a log cabin.

¹¹⁵See Dunn, Vol. 1; Esarey; and Leary.

¹¹⁶Members of the Mary Rigg Senior Citizens Group, "Early West Indianapolis," (October 22, 1979), located at Special Collections, West Indianapolis Branch, Indianapolis-Marion County Public Library, 2.

¹¹⁷George Pence, "The Indianapolis Donation," 1922, in the *Inventory of State Land Records* located at the Indiana State Archives, 9-10. The Indiana General Assembly stipulated which lots were to be sold in the Indianapolis Donation. All lots numbered 1, 5, and 9 were reserved from the first sale in hopes of getting a higher price at a later sale. The Legislature reserved entire squares for special purposes including one for the Marion County Court House and one for the State House. The purchaser was required to pay one-fifth of the cost of the lot at the time of purchase and pay the remaining balance in four annual installments. If the purchaser failed to pay the final installment within three months of the date due, the lot was forfeited.

The Harding family continued to purchase property in West Indianapolis, and by the time Mrs. Harding died in 1841, she owned a farm of one hundred sixty acres in Wayne Township near Eagle Creek. (See Figure 6.)¹¹⁸

Other families established farms in the area. The Reuter family had twenty-three acres of ground just north of Oliver Avenue and east of Belmont Avenue. The Becker's farm was located at Tremont Avenue and Morris Street, and the Hommel family owned a farm at Belmont Avenue and Minnesota Street. (See Figure 7.) The soft light from oil lamps in the windows of very modest homes welcomed neighbors, and the town grew into a "close-knit community."¹¹⁹

The Indianapolis and St. Louis Railroad tracks created the northern border of the village and brought more settlers. The stockyards opened in November 1877 near the intersection of Hadley Avenue and Judge Harding Street (which are now Kentucky Avenue and Harding Street). Two private parties were key advocates for the development of the stockyards: the McCarty family, who owned the land, and Thomas D. Kingan, who owned a meat packing firm at Maryland Street and White River.¹²⁰ (See Figure 7.)

Settlement in the West Indianapolis area fostered the growth of industry in Indianapolis. This area on the other side of the river from the mile square of Indianapolis provided a prime location for early businesses. In 1867, the Indianapolis Abattoir Company established a slaughterhouse and tallow manufacturing business south of

¹¹⁸Atlas of Donations: Sales and Reserves, City of Indianapolis, 1821-1913, "Map of the Donation: Survey of 1831," available on microfilm at Commission on Public Records, Indiana State Archives; Margaret Wolfer, "Social History of the 'West Indianapolis' Section of Indianapolis, Indiana," located at Special Collections, West Indianapolis Branch, Indianapolis-Marion County Public Library, 1.

¹¹⁹Members of the Mary Rigg Senior Citizens Group, 2.

¹²⁰Wolfer, 1-2; Dunn 1:256-261.



Figure 6. Digital photograph of future site of West Indianapolis from “Map of Marion County, Indiana” (Indianapolis: Condil, Wright & Hayden, Real Estate Agents, 1855). Courtesy of Indiana State Library.

- Sites:
- A. Reuter Farm
 - B. Hommel Farm
 - C. Union Stockyards
 - D. Kingan and Company
 - E. Indianapolis Abattoir
 - F. Parry Manufacturing
 - G. Nordyke & Marmon
 - H. Library
 - I. Coffey Avenue
 - J. City Cemetery
 - K. Graveyard Pond
 - L. Indianapolis Center

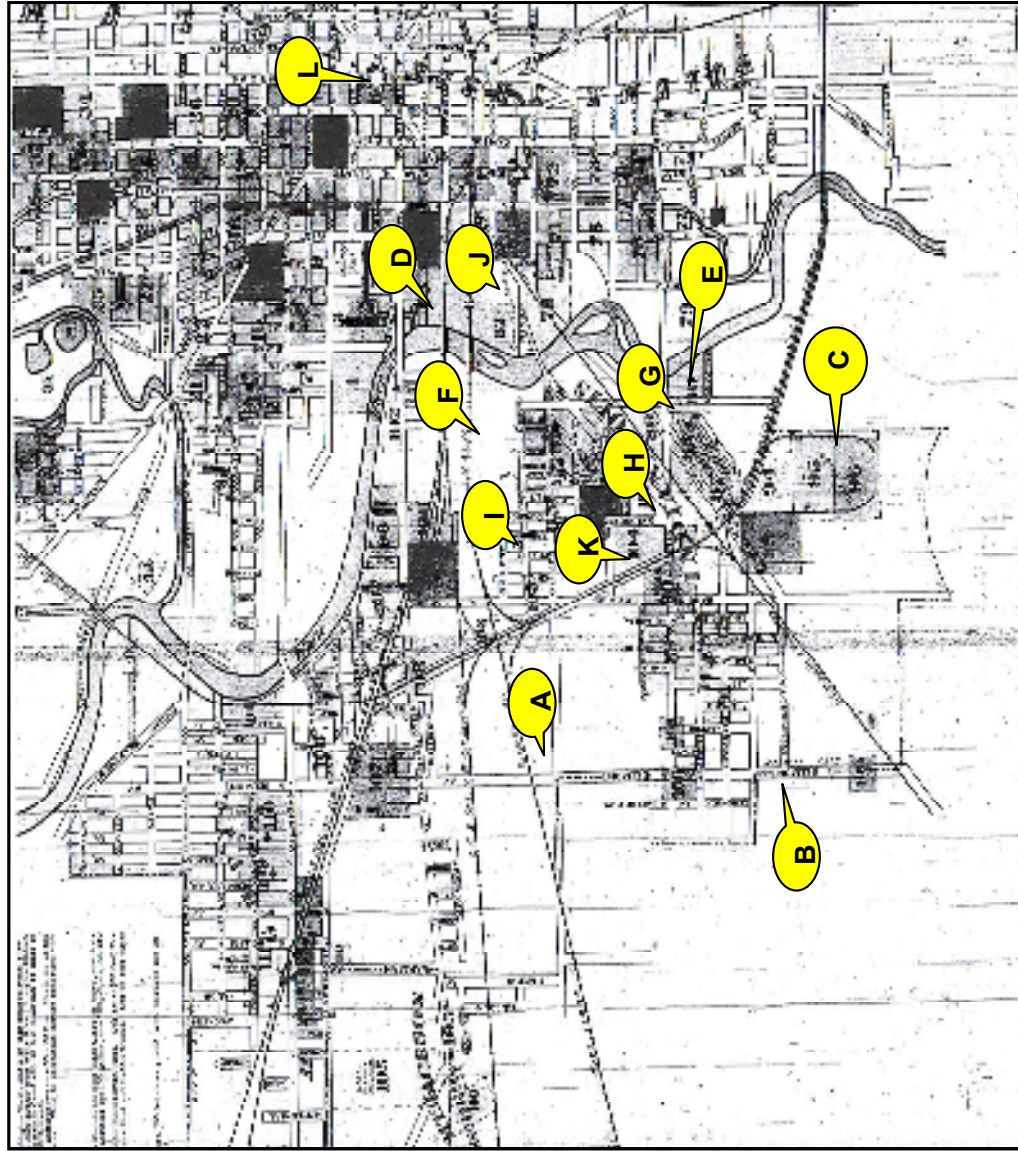


Figure 7. 1898 Sanborn Map of Indianapolis. Courtesy of the Indiana State Library, Microform Collection.

Morris Street, between Drover Street and White River. Around 1885, the Parry brothers purchased the shop and assets of the Great Woodburn Savern Wheel Co. near the Vandalia Railroad and renamed it the Parry Manufacturing Company, “the world’s largest cart, wagon and carriage making plant.”¹²¹ (See Figure 7.)

Another important business arrived in West Indianapolis in 1876. The Nordyke & Marmon Company, a flour milling machinery manufacturer, purchased a building at the southwest corner of Morris Street and Hadley Avenue. (See Figure 7.) The Nordyke & Marmon Company also founded another business in West Indianapolis, the Jenney Electric Company, in 1885. The Nordyke & Marmon Company was a partnership formed between two families. The Nordykes were grist millers in Holland who immigrated to Pennsylvania prior to the Revolutionary War. The family business was passed down from generation to generation as the sons, grandsons, and great-grandsons moved to Virginia, Georgia, Tennessee, and Ohio. Ellis Nordyke settled in Richmond, Indiana, and he and his son, Addison, set up their mill manufacturing and construction business in 1851 on the banks of the Whitewater River. The business began in a small frame, one-story wood building behind the house.¹²²

Addison Nordyke and Daniel W. Marmon were both from Quaker families, and they met at Earlham College. Daniel Marmon’s father was a prominent Ohio physician who moved to Richmond, Indiana, in 1846. His father was of French origin, and his mother’s family was of North Carolina extraction and originally Scotch. Marmon lost both of his parents when he was five years old, and he was raised by his uncle, Eli

¹²¹Ibid., 2; Divita, 2; http://www.coachbuilt.com/bui/m/martin_parry/martin_parry.htm.

¹²²*Nordyke & Marmon Company: An Institution. A History of the Development of a Leading Indianapolis Industry*. Special Edition prepared expressly for distribution to delegates to the Convention of the Associated Advertising Clubs of the World, Indianapolis, June 6-10, 1920, located at the Indiana Historical Society, 6-9.

Stubbs, who operated a saw mill at West Elliston, Ohio, where he also manufactured furniture, coffins, pumps, and broom handles. Marmon possessed an unusual genius that developed into a high-grade workmanship that permeated the entire organization founded by these men. The “Marmon shop standards—‘Build well, not slovenly’—was an ideal and a practice that . . . descended directly from the little shop, hardly more than a barn, in Richmond, Indiana.”¹²³

The business expanded operations in Richmond in 1866, and Nordyke and Marmon decided to move near Indianapolis in 1876 for more space, better shipping facilities, and the deeper labor pool that the larger city offered.¹²⁴ Over the years, the men diversified, adding operations such as bolt cloth production and automobile engineering. The company prospered in West Indianapolis, and the community benefited too.

Nordyke and Marmon were very proud of the number of long-term employees listed on the company’s roles. One such employee was Smith S. Griffith, born in 1844 near Winchester, Kentucky, moved to Richmond as a small boy, and hired as foreman for the cutting room in 1873. He moved to Indianapolis with the company in 1876, and as of 1920, had been with the company for forty-six years. Miss Mamie Kelley, started working for Nordyke & Marmon in 1881 when she was in her twenties. As of 1920, the bolt cloth cutting department had been under her care for thirty-eight years. Another long-term employee, with thirty-nine years as of 1920, was R. E. Roberts, born in Hagerstown, Indiana, in 1857. Roberts began working at Nordyke & Marmon when he was twenty-two years old, and for many years was in charge of the mill machine room,

¹²³Ibid., 9.

¹²⁴Ibid., 20-21.

carrying out the close supervision of mechanical detail that was the pride of Daniel W. Marmon. Roberts also helped develop the first Marmon car in 1902 and supervised the machining of the experimental parts that had been designed by Howard C. Marmon.¹²⁵

Amos K. Hollowell was the company's treasurer and also handled all correspondence, but letter writing at this time was a laborious process. Typewriters were not in use then, and letters were written in longhand. Daniel Marmon saw an advertisement by a stenographic school in the East to place its graduates, and brought it to the attention of Mr. Hollowell suggesting, "we should try one of these 'shorthand writers.'" They immediately sent a request to the school to send a stenographer. Within a few days Miss Hattie Clock arrived and began working as the first commercial stenographer to be employed in the city. Miss Clock's marriage two years later "was a real tragedy" for the company, according to Mr. Hollowell, and another message was hurriedly dispatched to the Eastern school. Miss Hattie Sperry was employed as the company's second stenographer, a position she held for some time.¹²⁶

A good number of Nordyke & Marmon's employees not only worked, but also lived, in West Indianapolis. John W. Bennett was a woodworker who started with the company in 1887 and, in 1913, was living at 1247 Nordyke Avenue. Fred J. Cook was a machinist who started with the company in 1885. In 1913, he was living at 1361 Nordyke Avenue with his wife, Minnie, and his twenty-one year old daughter, Nellie. John Follett was a laborer for the company since 1882. In 1913, he was living at 1101 Division with his wife, Barbara, and his eleven year old son, William.¹²⁷

¹²⁵Ibid., 15-25.

¹²⁶Ibid., 33.

¹²⁷R. L. Polk & Company, *Indianapolis City Directory for 1913*; Census of the United States (1910), available from <http://www.ancestry.com>.

Many of the people who settled in West Indianapolis arrived from Kentucky, Tennessee, Ohio, and southern Indiana, and eastern states. First-generation immigrants from England, Germany, Ireland, France, and Holland also settled in this area. The men who moved either on their own or with their families in the late 1870s were drawn by the employment opportunities at the railroads, stockyards, and industries.

Along with industry, the community grew and developed. In 1881, the village of Belmont built a school at the corner of Reisner and Howard Streets called West Indianapolis No. One. Later, the residents renamed this brick schoolhouse the West Indianapolis High School. The schoolhouse also served as the community center for meetings and gatherings of all kinds. The community expanded until there were five public schools and one Catholic school run by the Assumption Church.¹²⁸

On 5 March 1882 a group of Belmont's residents decided to incorporate their town, and they filed a petition to accomplish this. At the election on 4 April 1882, residents voted in favor of the petition and incorporated the town under the name West Indianapolis. By the 1890 census, West Indianapolis was the largest suburb of Indianapolis with a population of 3,527, and in 1894, West Indianapolis incorporated as a city.¹²⁹ McCarty's dream of building the belt line resulted in an economically developed area, a city named West Indianapolis.

The new city platted streets from the belt line thoroughfare and sold lots to small businesses opening along Oliver Avenue. Street car "O" provided public transportation for those who lived in West Indianapolis but who worked in downtown Indianapolis or at

¹²⁸Wolfer, 3.

¹²⁹Dunn, 1:440.

Kingan and Company on the east bank of White River.¹³⁰ The political heart of the suburb was the two-story brick city hall, fire house, and jail that stood on the southeast corner of Morris and Harding Streets in the Valley. (See Figure 8.) Republicans won most of the offices in the first city election with bribery charges abounding, and Alexander B. Tolin, a livestock commission merchant at Union Stockyards, became the first mayor of the city.¹³¹

West Indianapolis boasted a wide range of religious communities. Among the largest of its churches were the West Morris Street Free Methodist Church, Parkview Christian Church, and the Assumption Catholic Church.¹³² These churches played an important role in bolstering the sense of community.

Father Joseph F. Weber served as the pastor of the Assumption Church for forty years. He was born in Ripley County, Indiana, in 1865, and raised in Cincinnati where his father was a brewer. After attending the St. Meinrad seminary in southern Indiana, Bishop Chatard ordained Father Weber on 15 June 1889 and appointed him assistant at St. John in Indianapolis. As a young cleric, Father Weber regularly visited the Catholic families in West Indianapolis and celebrated three Masses each Sunday in a private house on Warren Avenue in the Valley. The mule-drawn streetcar fortunately passed by the house; otherwise, the trip would not have been possible in inclement weather because the unpaved streets became dangerous and unsightly. Efforts to organize a parish in West Indianapolis were challenged by a lack of financial resources. The future of the parish depended on building a church and a school. The parish membership list reflected that these individuals were employed as blacksmiths, boilermakers, carpenters, railroaders,

¹³⁰Divita, 2-3.

¹³¹Ibid., 3, referencing Dunn, 1:5-6.

¹³²Wolfer, 6.

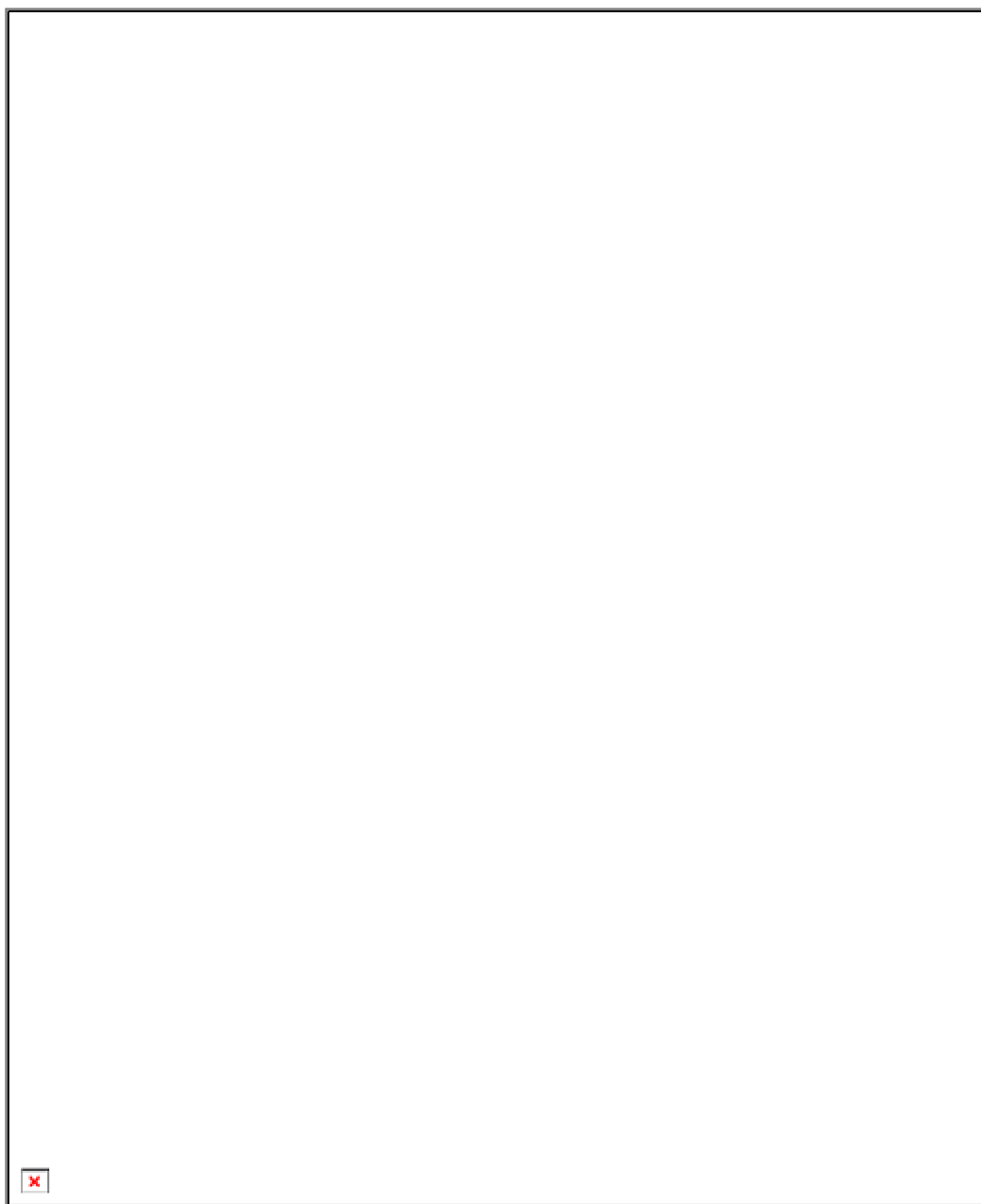


Figure 8. West Indianapolis Fire Department and Police Station (Bass #26551), W.H. Bass Photo Company, 1911, Courtesy of Indiana Historical Society, Digital Images Library.

laborers, etc. They lived comfortably, but they possessed little surplus.¹³³ Bishop Chatard requested the priest to raise \$800 to pay the notes due for purchase of the Blaine Avenue property, where the parish eventually built the church. Father Weber traveled to Cincinnati to ask his father for financial assistance, and after receiving a donation from him, the local residents were encouraged to “dig deeply into their shallow pockets,” and they contributed over \$1,100 toward construction of the church. On 12 August 1894 Bishop Chatard dedicated the Assumption Church with Father Weber serving as pastor.¹³⁴ (See Figure 9.)

Residents of West Indianapolis buried their family members close to home in City Cemetery, but the close proximity to White River created problems. (See Figure 7 on page 63.) When flooding occurred, bodies and tombstones often washed away. Indianapolis responded by establishing a new cemetery north of town in a more visibly appealing, pastoral setting. The city then mandated that residents move the bodies of family members buried in City Cemetery to the new Crown Hill Cemetery at the families’ expense. As early as 1898, Indianapolis had condemned a portion of City Cemetery and ordered its use as a park, although many families still had not moved their family members at that time.¹³⁵

West Indianapolis, a young but thriving city, showed its character and separated itself from Indianapolis in many ways, in its politics, churches, schools, cemeteries, and its social problems. As was typical for industrial towns at the turn of the century, West Indianapolis had its share of corner saloons for quenching thirsts after long hours at the

¹³³Divita, 7.

¹³⁴Ibid., 6-7.

¹³⁵Garman, *Plat Map of Union Cemetery*, recorded July 25, 1898, located at Indiana State Library; and *Encyclopedia of Indianapolis*, s.v. “Built Environment,” by Elizabeth B. Monroe.

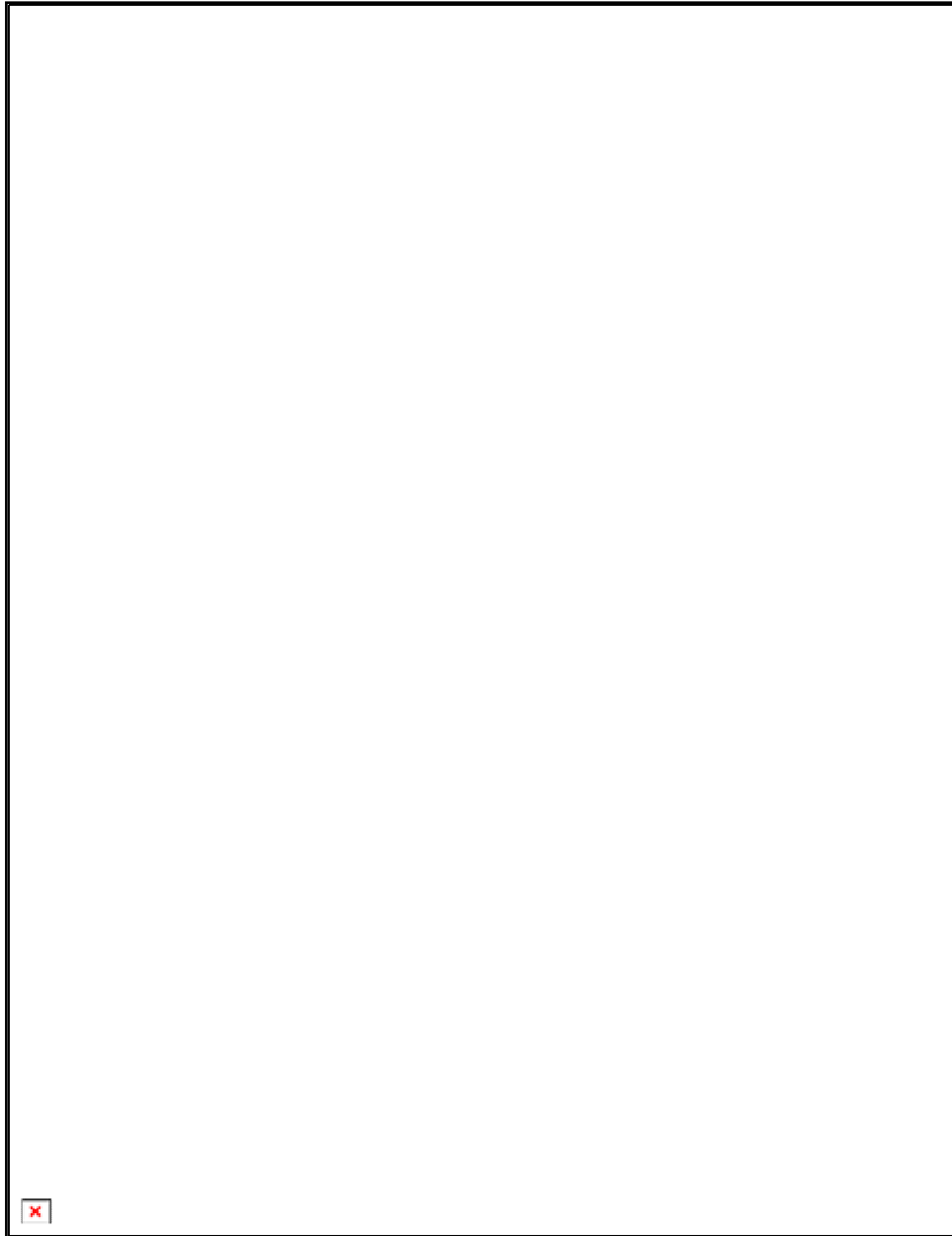


Figure 9. Church of the Assumption, 1904 (Bass #3123), W.H. Bass Photo Company, Courtesy of the Indiana Historical Society, Digital Image Library.

stockyards and factories. A strong temperance movement existed in the religious community, but the saloons outnumbered the churches. Besides drinking, other problems in West Indianapolis included gambling, loafers, a smelly dump, the streetcar line not extending to Belmont Avenue, baseball games on Sundays (Indianapolis rejected Sunday ballgames), and poor streets and sidewalks.¹³⁶

The city's second election year occurred in 1896 and initiated important changes, including annexation by Indianapolis. Democrats won the elections in West Indianapolis, at a time when the Indianapolis Mayor was the popular Democrat Thomas Taggart. A desire to upgrade city services and reduce the cost of government prompted discussions of annexation to Indianapolis.¹³⁷ On 15 March 1897 Indianapolis annexed West Indianapolis along with four other suburbs: Brightwood, Haughville, Mount Jackson, and Eastside Terrace. (See Figure 10.) The City Council passed the ordinances in a hurried proceedings without a dissenting vote although the "preliminaries bristled with evidence of opposition from the Republican side." The proponents of annexation felt that West Indianapolis would benefit from the union. The Comptroller of Indianapolis estimated a gain of \$36,000 in annual revenue from annexation of the new territories, an amount they considered sufficient to take care of them.¹³⁸

Shortly after annexation, Indianapolis established a new library for the suburb in a red brick building at the corner of Morris Street and River Avenue in West Indianapolis.

¹³⁶Divita, 4; see, also *Town of West Indianapolis Ordinance Book A (1883-1889)*, located at Commission on Public Records, Indiana State Archives, which includes ordinances passed to address pertinent issues such as inspecting slaughter houses, requiring permits for draining water or fluids, fining prostitutes and men associating therewith, fining gamblers, prohibiting vagrancy, and regulating saloons and billiards.

¹³⁷Divita, 5.

¹³⁸"Annexation Complete," *Indianapolis News*, 16 March 1897; Dunn, 1:440.

(See Figure 7 on page 63.) However, in 1898, White River overflowed its banks and flooded the Valley just west of the river. The city librarian, Miss Eliza G. Browning, went with field glasses in hand to the top of the Soldiers and Sailors Monument to check on the condition of the library. Although the water almost surrounded the library, she managed to have the books moved. After the muddy waters receded, they found that the books had been moved to shelves about one-half inch above the highest water mark. In May 1898, Indianapolis erected a new building on higher ground and moved the library there in November. Later on in 1910, Indianapolis used a portion of a \$120,000 gift from Andrew Carnegie to build a permanent library building in West Indianapolis.¹³⁹ In the early years following annexation, residents felt assured that annexation would benefit West Indianapolis.

By 1906 Indianapolis had firmly established itself as a forward-thinking, viable city in which to consider starting a business or settling down and finding a job. The following description appeared in the introduction of the 1906 Polk's City Directory:

Indianapolis is more than a "city of homes." It is a hustling, thriving business city, filled with up-to-date and progressive establishments and dotted thick with great and growing manufactories, which have experienced the greatest year's business in their history. That Indianapolis is attracting wide-spread attention in the world of manufacturing is evidenced by the fact that during 1905 no less than 89 different manufacturing plants were established in the city, many of them coming from other cities. At the present time the city has almost 2,300 manufacturing establishments, in which approximately 45,000 people are employed, receiving \$15,000,000 in wages annually.¹⁴⁰

West Indianapolis contributed greatly to these statistics describing Indianapolis and its manufacturing successes. Some great achievements were coming out of this community

¹³⁹Wolfer, 5.

¹⁴⁰Polk, *Indianapolis City Directory for 1906*, 75.

now enveloped with Indianapolis. Although it was officially no longer separate from Indianapolis, residents still referred to their neighborhood as West Indianapolis.

In the early twentieth century, Indianapolis became a forerunner in the automobile and racing industry. Howard C. Marmon achieved great success as an automotive engineer working at the Nordyke & Marmon Company. In the early twentieth century racing stock chassis was considered the final test of a motor car's fitness for everyday service. Howard Marmon first entered into a contest of this kind on 19 August 1909 at the Indianapolis Speedway. Ray Harroun drove the Marmon car in the Ten-Mile Free-for-All Handicap and won the race. Victories followed in quick succession after that first attempt. On 30 May 1911 Marmon's racing history reached its pinnacle when Ray Harroun and Cyrus Patschke drove the Marmon "Wasp" to first place in the International Sweepstakes Five-Hundred-Mile Race at the Indianapolis Speedway. The average speed during the race was 74.61 miles per hour.¹⁴¹

Howard Marmon also won attention for his West Indianapolis family business when he assisted in the development of the Liberty Motor used in aircraft engines during World War I. The Nordyke & Marmon Company won the first honor pennant offered by the United States government for building and shipping the highest number of Liberty Motors during the month of October 1918. The workers surpassed their production record at 225 percent of the allotted quota.¹⁴²

By 1913, West Indianapolis had shown its value as a viable, cohesive community that contributed to the overall success of Indianapolis. The people living in West Indianapolis were hard-working, tax-paying citizens who contributed to the support of

¹⁴¹*Nordyke & Marmon*, 53-54.

¹⁴²*Ibid.*, 41-42; "Wins Liberty Motor Flag; Nordyke & Marmon Company Led All Manufacturers in October," *New York Times*, 2 November 1918, 14.

their local schools, library, and churches. Well-established large and small businesses supplied opportunity for employment to residents of the city of Indianapolis. The area accommodated railroads, stockyards, and industries, crucial components that joined the capital city and the state of Indiana with the national economy.

West Indianapolis was a community of working families. John A. Claghorn, a laborer at an automobile factory, lived at 523 Coffey in 1913 with his wife, Prudence, his eleven year old son, Irvin, and his three daughters, Adeline, Mina, and Teresa, ages ten, eight, and four. Walter Vanasdal was an electrician for a heating and lighting company. He and his wife, Catherine, and five year old son, George, had been living in the house across the street from the Claghorn family at 522 Coffey for a short time in 1913.

William E. Longemire was a laborer, who moved to Indianapolis from North Carolina with his wife, Lucinda, and their five sons and three daughters, living at 528 Coffey in 1913.¹⁴³ (See Figures 11a and 11b.)

Those who owned the major businesses or had been involved with bolstering this community in its earlier years, were now living outside the borders of West Indianapolis. According to the 1910 United States Census, Addison Nordyke lived at 2330 College Avenue, and Walter Nordyke lived at 901 North Capitol at a boarding house. Daniel Marmon died in 1909, but his widow, Elizabeth, was living in their home on North Delaware Street. Howard Marmon lived on North Pennsylvania, and Walter Marmon lived on North Delaware. Nicholas McCarty, Jr., lived at 32 East Vermont. Alexander B. Tolin, the first mayor of West Indianapolis, lived at 120 Nordyke in 1896, but following his tenure as mayor, he moved to a home at 2164 North Pennsylvania Avenue.

¹⁴³Polk, *Indianapolis City Directory for 1913*; Census (1910).

[illegible]

Figure 11a. 1910 U. S. Census. Courtesy of Indiana State Library, available from <http://www.Ancestry.com>.

The Relationship with the River

These were some of the people and businesses that comprised West Indianapolis. But, what does this information say about the relationship they had with White River? Did the river influence where they lived, their activities, and their identities? Did their beliefs and actions have an impact on the river?

Nicholas McCarty, Sr., “an honored and distinguished pioneer of Indiana and its capital city,” was progressive and ambitious not only for personal success but for the general welfare of his home town and state.¹⁴⁴ He tried a number of business operations on his bayou farm in West Indianapolis. He introduced growing silk in Indiana around the year 1835. About five years later he initiated cultivation and manufacture of hemp, to which he devoted much of his bayou farm, in addition to land in other sections of the state. Unfortunately, due to the financial condition of the country at the time, manufacturing hemp proved unprofitable to McCarty, and he abandoned the initiative after a period of about three years. Nonetheless, he had confidence in the ultimate prosperity of the capital city, and his endeavors laid substantial foundations for the city. He purchased large tracts of land in Marion County and other counties of the state, and because of great appreciation in the value of his holdings near Indianapolis, his descendants received large financial returns.¹⁴⁵

McCarty was one who initially worked with the river to achieve success. His “bayou” farm location depended on flooding from White River for successful crops. Eventually, the river and its surrounding landscape became an obstacle in the way of

¹⁴⁴Dunn, 2:668-669.

¹⁴⁵Ibid., 2:670.

economic progress for the city and McCarty's heirs. The proximity of this low-lying land to the city made it more profitable for McCarty's heirs to sell the land for other uses.

The White River and the railroads influenced the locations of many early businesses that set up shop in West Indianapolis. While land values likely played a part in business owners' decisions, clearly shipping and receiving and waste disposal concerns directed their decisions as well. By a Special Commission on 8 March 1883 the Board of Trustees of West Indianapolis declared it unlawful to slaughter cattle, sheep, hogs, or other animals within the corporate limits of the town, except on the banks or margin of White River.¹⁴⁶ This ordinance reflects how businesses used White River to dispose of their waste, thereby influencing their choice of location.

By the 1920s, the quality of the water became so polluted that farmers downstream of Indianapolis could not allow their cattle to drink from White River or to grow crops along the river's banks.¹⁴⁷ Residents dismissed the river for their most basic need—a clean, potable water source. Until the early twentieth century, citizens of Indianapolis relied on dug wells for drinking water and other household uses. The connection between waste dumped in the river and potable water went largely unrecognized. Due to waste and sewage disposal in White River, accompanied by repeated flooding, city health officials were troubled by typhoid fever cases for many years, and residents were often required to boil water to kill bacteria.¹⁴⁸

¹⁴⁶*Town of West Indianapolis Ordinance Book A (1883-1889)*, located at Commission on Public Records, Indiana State Archives.

¹⁴⁷Scarpino, 202.

¹⁴⁸Joint Commission composed of George W. Fuller, C.E. Ferguson, and B.J.T. Jeup, "Report Upon the Water Supply and Sanitary Conditions of the City of Indianapolis" (Indianapolis: by the author, October 26, 1904), 1 and 3-5.

When people were navigating the river by canoes and flatboats in the early nineteenth century, they took care to remove obstructions from the river. When Congress began appropriating funds to build canals in 1828, people turned their attention to the possibility of creating new watercourses and discarded efforts to improve and maintain the existing river. This change in mindset, together with alterations associated with the growing city—continual land development, levee construction, bridge erection, drainage projects, the lure of the railroads, and industrialization—redirected the future of the river. These developments set the stage for White River to become the topic of jests about its navigability, for a state court ruling at the end of the nineteenth century that declared the river not navigable, and for misuse of the river leading to increased pollution, flooding, and undesired social consequences.¹⁴⁹

After the failure of the *Governor Morton* to prove White River navigable, the city expected that governmental aid would be provided to help remove obstructions from the river, but nothing came of those expectations. The fact that the boat made it as far as it did was a surprise given the years of accumulated drifts and sandbars. By 1910, the flow of White River had become more uneven due to cleared land and increased drainage, making the surface water pass off more rapidly and increasing obstructions in the streams. After clearing the land, rainstorms then washed more and more trees into the river. These logs either formed drifts or became water-logged and sunk to the bottom forming a base for sand and gravel bars.¹⁵⁰

The river had been abandoned as a navigable route and the level of filth dumped in the river was steadily increasing. Typically, one would expect that the river provided

¹⁴⁹Dunn, 1:16-18.

¹⁵⁰*Ibid.*, 1:19.

some source of recreation. Did residents catch and eat fish from White River? Did they take canoe rides? Did children play on the river's banks? Did they ice skate in the winter? Or, did the threats of malaria and typhoid keep people away? Social historian Frederick Doyle Kershner, Jr., found that in the 1860s and 1870s summer activities in Indianapolis included all-day picnics in the woods, hiking parties, and swimming in the Canal or "holes" of Fall Creek and White River. In the winter, people engaged in activities such as ice skating, sleighing, and tobogganing.¹⁵¹ Therefore, residents enjoyed the river for recreation, while at the same time, they viewed the river as an unhealthy place.

While contemplating the future of Indianapolis and what could be done with the property in West Indianapolis to help economic conditions in the capital city, Mayor John Caven retreated to the river to meditate about his problem. Mayor Caven shared the following account in 1881:

One day in September 1875 I walked around the old abandoned embankment west of White River, and from the Vandalia Road to the river I walked all the way through weeds higher than my head, pushing them aside with my hands. I took off my boots and waded White River not far from the present Belt Road bridge, and, as the water was deep, I got my clothes wet. Climbing over to the partially built abutment on the east bank to dry, I sat there for two hours considering the question of whether the great work of a road around this city could be put in motion. It would combine all the benefits sought, not only furnish work for our laboring population during the savage year of 1876, or at furthest 1877, but also relieve our streets. It would also bring here an immense cattle business and lay down a great taxable property. As I looked over that almost desert-looking river bottom, the outlook for moving in the matter to furnish bread to hungry people a year or two anyway was gloomy, but I then and there determined that this was the only project that could

¹⁵¹Frederick Doyle Kershner, Jr., "A Social and Cultural History of Indianapolis, 1860-1914" (Ph.D. diss., University of Wisconsin, 1950), 223.

accomplish the result, and resolved to make the effort, and see what will and a good purpose could do.¹⁵²

The spot where Mayor Caven sat provided a good view of the landscape of West Indianapolis, so that may have been his goal when he headed toward the river. He described the river bottom as desert-like and the river banks as abandoned and full of overgrown weeds.

As Mayor Caven thought about the best use of the land west of White River, he emphasized the importance of taxable property. Converting the swampy land to commercial use made economic sense in the wake of the Panic of 1873. In his “Belt Road Message” read to the Common Council of Indianapolis on 17 July 1876, Mayor Caven asked the Council to suppose that

Indianapolis were surrounded by a navigable water, into which poured eleven navigable rivers, navigable to every county in the state, and to every state in the Union, to every fertile valley, to every hillside with its exhaustless mines, to every quarry of stone and forest of timber, and, in addition, this water was especially adapted for the location of innumerable manufactories, would it be deemed an improper expense for the city to improve such harbor? What that harbor would be to the city in the water, that road might be to us.¹⁵³

Clearly, city administrators were sensitive to the non-navigable status of White River and believed the railroads held the potential the river lacked.

A dichotomy existed in the relationship between people and the river. Actions taken by residents and businesses reflect that people often failed to realize the interdependent relationship they had with the river and, instead, disassociated themselves from the river. The river was important for farming and many industries. It was also useful for waste disposal. It was even useful for a retreat from the city or for recreational

¹⁵²*Indianapolis Sentinel*, 18 May 1881, quoted in Dunn, 1:259.

¹⁵³Dunn, 1:259. Mayor Caven was referring to the eleven railroads that passed through Indianapolis in 1876.

purposes. Regardless, the river had been abused by residents and businesses resulting in an unhealthy environment. The 1913 flood brought the reciprocal relationship that existed but remained unacknowledged into the foreground.

CHAPTER 3: THE 1913 FLOOD

Pop and Irvin had brought in 2 X 4's to put under the piano . . . the piano was the important thing. It was a beautiful one and we were all so proud of it, especially Pop. He had worked hard to keep up payments on it and only owed one or two more.

--Adeline Claghorn Haine, "1913 Flood
(West Indianapolis, Indiana) 523 Coffey Street,
as remembered by Adeline Claghorn Haine in 1979"

In 1913, White River flooded like never before, devastating West Indianapolis.

Adeline Claghorn's family lived at 523 Coffey Street in West Indianapolis, and they rode out the storm in their attic. She was ten years old in 1913, and she remembered it as a long, fearful night. It turned out that the strange noises they started hearing around 11:00 p.m. under the attic floor were the furniture bumping against the ceiling. They could also hear voices, close and far away, calling out in distress, one was their neighbor calling for his wife. Finally, around 11:00 the next morning, a canoe pulled up to the edge of the roof, and the Claghorn family—mother, father, and four children—climbed out of the attic window and stepped down into the canoe. When they were allowed to go back to their house, after about two weeks, they found a sickening sight. Wet and slippery mud covered everything, and they sprinkled lime everywhere, especially on the outside toilets to prevent disease. After working for days just getting the mud and ruined things out of the house, they carried the "once beautiful piano out in the back and burned it."¹⁵⁴

People like the Claghorns, who moved to West Indianapolis to find employment and a place to call home, faced flooding as a fact of life. Regardless of their resolve, the "Great Flood" of 1913 "isolated the west side," literally and figuratively.¹⁵⁵

¹⁵⁴Adeline Claghorn Haine, "1913 Flood (West Indianapolis, Indiana) 523 Coffey Street, as remembered by Adeline Claghorn Haine in 1979," interview by Vicki Haine Hatfield and Irma Baker, spiral booklet (Adeline Claghorn Haine, 2000), located at Indiana State Library, 10-16.

¹⁵⁵Leary, 184.

In the middle of March 1913 severe storms blew into the country from the northwest. The local newspapers reported on tornados, floods, and fire from Nebraska to Illinois as the storms slowly marched toward Indiana. Reports of deaths, destroyed homes, ravaged railroad lines and bridges, downed telephone lines, and stranded communities filled the front pages. The storms entered the state on 23 March 1913, with a tornado that killed an estimated fifteen to twenty-five people in Terre Haute.¹⁵⁶ The *Indianapolis News* reported on the destructive path of the storms with flood reports from every city in the state located near a river. Articles titled “\$500,000 Loss at Peru,” “Over the Muncie Levee,” “Boats in Carmel Streets,” “Danville Cars Stopped,” “Bloomington is Cut Off,” and “Shelbyville Levee Breaks” appeared on just one page of the *Indianapolis News* on 25 March 1913.¹⁵⁷

The rain began to fall in Indianapolis on 23 March and lasted for five days. In Indianapolis, the stone railing and a part of the roadway washed from the east side of the Meridian Street bridge over Fall Creek.¹⁵⁸ Stories and photographs in the *Indianapolis News* showed flooded streets and submerged houses in the area of Thirtieth Street and Central Avenue and in Broad Ripple.

In the end, however, the flood hit West Indianapolis the hardest, including collapsing the Washington Street bridge, which was the link between West Indianapolis and downtown Indianapolis. (See Figures 12a and 12b.) In the early evening on 25 March water from White River crested and spilled over the banks, and West Indianapolis

¹⁵⁶“Relief is Given Indiana Victims of the Tornado,” *Indianapolis News*, 24 March 1913.

¹⁵⁷*Indianapolis News*, 25 March 1913.

¹⁵⁸“Part of Meridian Street Bridge is Swept Out,” *Indianapolis News*, 26 March 1913, photograph and caption.



Figure 12a. Washington Street Bridge One Hour Before It Collapsed March 26, 1913 (Jay Small Postcard Collection #P0391). Courtesy of the Indiana Historical Society, Digital Image Library.



Figure 12b. Washington Street bridge, flood damage, 1913 (Bass #296640F-7).
Courtesy of the Indiana Historical Society, Digital Image Library.

flooded east of Harding Street.¹⁵⁹ In some places the water was from 10 to 15 feet deep. The flood washed away the tracks of the Belt railroad, from the Kentucky Avenue shops east to White River. The Union stockyards were completely surrounded by water. A heavy current ran through the gap made by the break in the Belt railroad levee.¹⁶⁰ Late in the afternoon of 25 March Mayor Shank notified Fire Company 19 at Morris and Harding Streets that the Morris Street levee was breaking. (See Figure 13.) Within a few minutes, water began to flow into the station. By the time the firemen hitched horses to their wagons, the flood water had reached their waists. The lower floor of the fire station ultimately had water 9 feet deep, and the station was a half mile from White River.¹⁶¹

When the levee south of Oliver Street broke, the torrential waters drowned a man, a woman, and a child in their own home. Rescuers in boats worked tirelessly to save the stranded families on roofs and from attics. Houses floated in the middle of the streets. Finally, at 1:30 a.m., the efforts stopped because rescuers could work no more, although many people remained stranded. “Cries of distress were heard from all sides during the early hours of the night, but as the night wore on the cries became fewer and feebler, and at 3:00 a.m., there was stillness in the flooded district.”¹⁶²

On 26 March the east and middle spans of the West Washington Street bridge over White River gave way. The high tension feed wires that supplied electricity for the Indianapolis Street Railway Company over the bridge were almost in the river at places. The bridge tore loose from the pier on the east, and the end of the roadway went below the water. The water ran over the road in torrents and gradually washed away parts of the

¹⁵⁹Members of the Mary Rigg Senior Citizens Group, 5.

¹⁶⁰“Belt Railroad Track Reported Washed Out,” *Indianapolis News*, 26 March 1913.

¹⁶¹Divita, 18; and *Indianapolis Star*, 30 March 1913.

¹⁶²“Reports of Bodies Seen on the Water,” *Indianapolis News*, 26 March 1913.

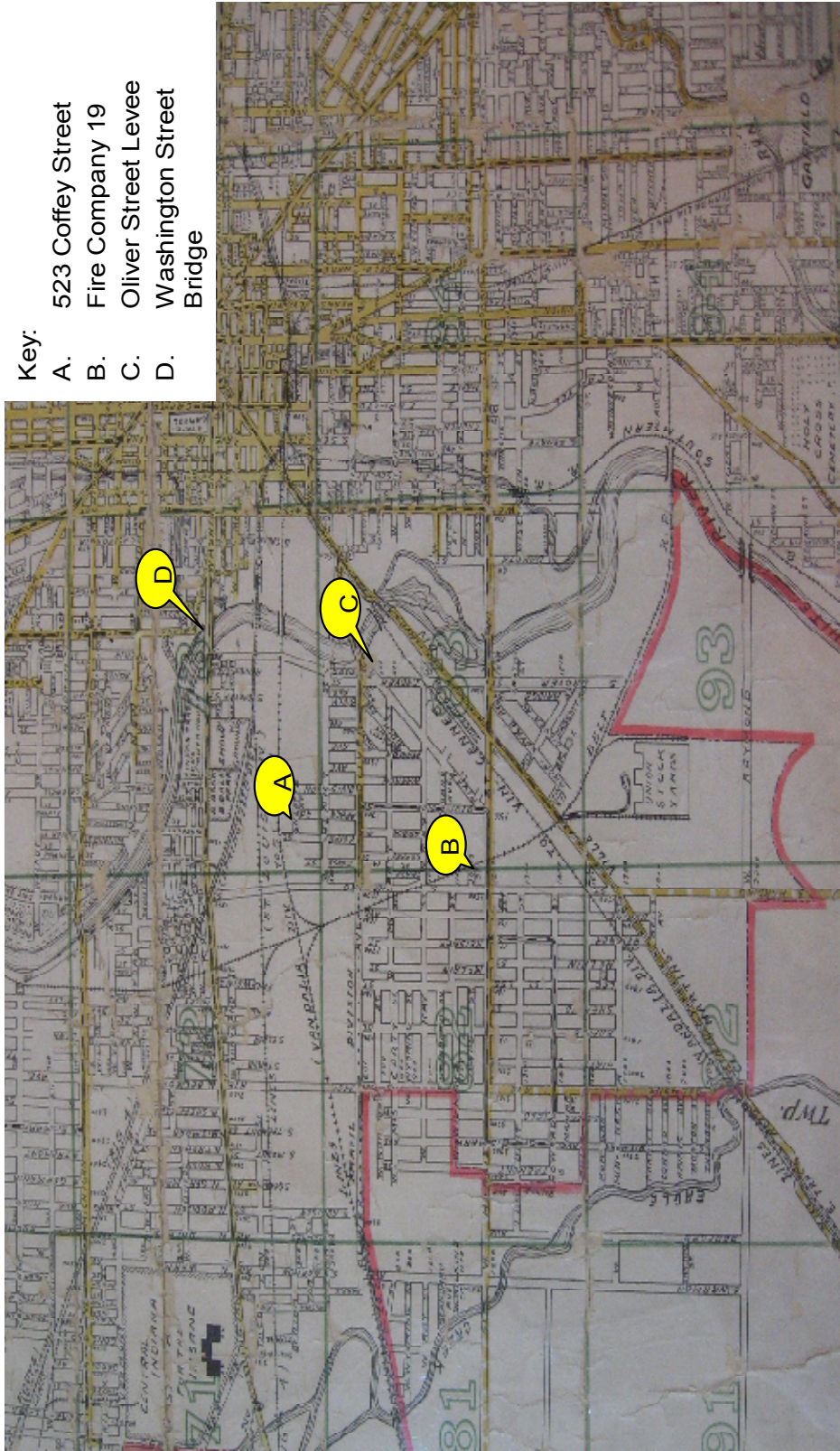


Figure 13. Digital photograph showing West Indianapolis in 1913. “Dreher’s Simplex Street Map and House Number Guide and Improved Index and Distance Map of Indianapolis.” Courtesy of Indiana State Library.

railing. The night before, the rushing water swept away the Indianapolis & Vincennes railroad bridge over White River. All efforts on the part of the railway employees to save the Vandalia bridge proved futile. The police, anticipating the bridge to be washed away, had backed five coal cars, two of them filled with bricks, onto the tracks to weigh the bridge down. Those standing at Washington and Illinois Streets testified that they heard the crash of the failing bridge.¹⁶³ (See Figure 13.)

The United States Weather Bureau reported a total of six and one-tenth inches of rain during those five days. The flooding that resulted “cost the lives of scores of people, rendered many thousands homeless, and destroyed property beyond estimate. . . . The enormous losses over such an extended area is unprecedented in the history of this portion of the United States, and it must follow that an occurrence so unusual must have been produced by extraordinary weather conditions.”¹⁶⁴ (See Figures 14a and 14b.)

The flood affected the entire Ohio River valley and its tributaries and received national attention. According to a Congressional report, the flood of 1913 stood out from its predecessors especially because of the exceptional magnitude and intensity of the storms which were its direct cause and because the greatest damage occurred along tributaries, which in the past had not been particularly effective in creating flooding on the Ohio River. Table 12 included in this report indicated that when the river level reached 21 feet on the West Branch of White River, recorded at Elliston, Indiana, experts considered the river in danger of flooding. The crest on 27 March 1913 reached 31.3 feet—1.7 feet higher than the previous maximum crest. This location had kept records since about 1908. On the East Branch of White River, recorded at Shoals, Indiana, when

¹⁶³“West Washington Bridge Gives Way,” *Indianapolis News*, 26 March 1913.

¹⁶⁴Department of Agriculture, Weather Bureau, *The Flood on White River in March, 1913*, by Verne H. Church, Section Director (Indianapolis, April 8, 1913), located at the Indiana State Library.



An abandoned street car in center of flood

Figure 14a. Photograph taken by a Daring Photographer during the worst of the horrible catastrophe, "Twelve Views of the Indianapolis Flood of March 1913," (Indianapolis: C. A. Tutewiler). Courtesy of Indiana State Library.



Silver Avenue in West Indianapolis

Figure 14b. Photograph taken by a Daring Photographer during the worst of the horrible catastrophe, "Twelve Views of the Indianapolis Flood of March 1913," (Indianapolis: C. A. Tutewiler). Courtesy of Indiana State Library.

the river level reached 25 feet, experts considered the river in danger of flooding. The crest on 28 March 1913 reached 42.2 feet—8.1 feet higher than the previous maximum crest. This location had kept records since about 1903.¹⁶⁵ Scientific recording of flood data did not begin until the twentieth century at these locations, but by all accounts, the 1913 flood was the greatest flood in the history of the midwest portion of the United States.

The Pennsylvania Railroad commissioned a report to assess the damage to the rail lines and bridges, and its report included an observation station at Indianapolis. The railroad reported the stage at which flooding occurred at the Indianapolis station as 12 feet. The water level reached 25.7 feet in March 1913—6.2 feet higher than the previous maximum level.¹⁶⁶ As shown by these statistics, the flood in 1913 reached new levels in Indianapolis, compromised flood control measures previously implemented, and challenged city planners and engineers to devise new methods for flood control.

Local reports confirmed the unprecedented flooding in 1913. On 25 March the local office of the weather bureau issued a statement concerning the flood conditions on White River: “At Indianapolis the government river gauging station is surrounded by water making it inaccessible for further readings. The last obtained was 19.6 feet at 9 a.m. The highest previous record was 19.5 feet, in 1904, on April 1.”¹⁶⁷

The report commissioned by the United States government did not include Indianapolis, a capital city, as a recording point on White River. The report

¹⁶⁵A. H. Horton and H. J. Jackson, *The Ohio Valley Flood of March-April, 1913 (Including Comparisons with Some Earlier Floods)*, (Washington, D.C.: Washington Government Printing Office, 1913), 47 and 51.

¹⁶⁶C. W. Garrett, comp., *A History of the Flood of March, 1913. Pennsylvania Lines West of Pittsburgh*, (Pennsylvania Company, 1913), 251.

¹⁶⁷“Weather Bureau’s Statement,” *Indianapolis News*, 25 March 1913.

commissioned by the Pennsylvania Railroad did record statistics at Indianapolis, although it did not include any information about damage to the railroad lines and bridges in Indianapolis. This lack of attention to flooding in Indianapolis raises the question of why government agencies and businesses treated flooding in the capital city as unimportant? The river flowing through the city seemed to hold little significance locally or nationally.

The Topography

Long before the 1913 flood occurred, certain factors were present and a number of events transpired that governed the impact of the flood. The commissioners to the legislature came from southern Indiana where the land was knobby and intricately laced with streams. The prospect of building a town on land “as level as a barn floor” was appealing to them. Unfortunately, they failed to consider the issue of drainage.¹⁶⁸ In their defense, the commissioners visited the future site of Indianapolis in 1820, apparently a dry year. As previously mentioned, the commissioners chose the site for the capital city because of its central location in the state, because the land was level with rich soil for farming, and because they believed White River was navigable. The following year, the more common, wet conditions of Indianapolis were revealed.

Geologists have conjectured that the site where the city now stands was in some past age the bed of a lake. The average elevation is about 720 feet above sea level but with somewhat higher ground on all sides. (See Figure 15.) A swampy valley called Pogue’s Run ran diagonally across the site. An extensive swamp called Fletcher’s Swamp existed northeast of the mile square that in wet seasons discharged its overflow through the site of the city via “the ravines.” During floods, Fall Creek emptied its surplus water through Fletcher’s Swamp and the same ravines. A number of deep places

¹⁶⁸Dunn, 1:8.

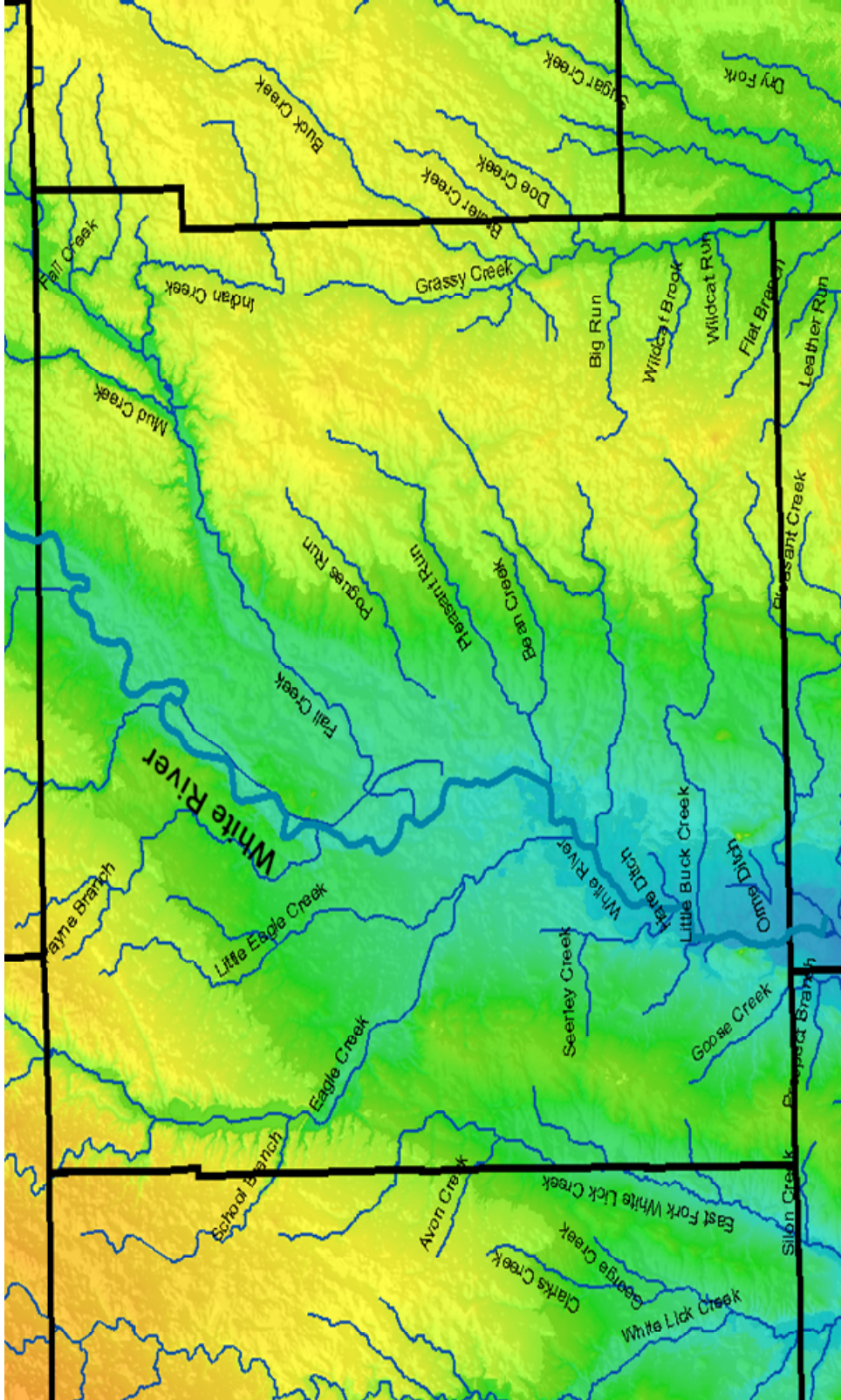


Figure 15. Topographical Map of Marion County, by Thomas O. Swinford, Ecologist, Indiana Department of Natural Resources.

developed where water stood most of the year, and water puddled for weeks during the wet seasons in low places scattered through the dense forest. In the area that later became West Indianapolis, just southwest of Greenlawn Cemetery a body of stagnant water existed, called “Graveyard Pond,” that was covered by a green, filthy scum and inhabited by snakes and frogs in the summer. (See Figure 7 on page 63.) Lake McCarty was another pond in the low ground between Ray and Morris streets. It was both a natural and man-made pond, as its size and depth increased due to excavations and fills for the National Road. Settlers in the area maintained that it rained much more in Indianapolis in the earlier years than later, which is probable because the conditions were “peculiarly favorable to local evaporation and reprecipitation.”¹⁶⁹

By forging ahead with plans to build the city in that muddy location, the founders set the stage for the environmental future of the city—an environment in which flooding would become increasingly more severe, costly, and unhealthy. Consequently, the relationship between city residents and the landscape continually grew into one of distrust and distance. People either ignored their circumstances or distanced themselves from the river as much as possible. They covered swamps and filled ravines. They knew flooding would occur, but not exactly when. In fact, the city enjoyed years without flooding.

The muddy location also meant unhealthy conditions for the settlers. Unfortunately, as the secretary of the Indiana State Board of Health John N. Hurty noted in 1908, “almost nothing was known of the disease-bearing possibilities of water” and early settlers considered diarrhea, dysentery and typhoid “among the necessary

¹⁶⁹Ibid., 1:8-14.

concomitants of life.”¹⁷⁰ Diseases common in Indianapolis included cholera, consumption, scarlatina, diphtheria, dysentery, pneumonia, influenza, typhoid, cerebro-spinal meningitis, and tuberculosis. The common diseases shifted over time, but without the bacterial key, doctors found it difficult to distinguish between the various maladies and often categorized them simply as miasma and epizootic.¹⁷¹

The conditions in Indianapolis “made a natural field for malarial diseases.”¹⁷² But, it was not until the mosquito theory arrived on the scene around 1898 that people understood the cause of the disease. People believed it was the product of the miasma rising from the damp soil and decaying vegetation or possibly the alternations of heat and cold. Most of the early settlers “served a regular apprenticeship at the ague,” including the doctors who treated them. They did recognize that the disease became less common as the land was cleared, another reason to take control of the topography.¹⁷³

During floods, the ravines became raging torrents. Before Washington Street was graded for the National Road, the ravine that crossed Washington Street was a broad valley and so deep that in flood time the water at that point “would swim a horse.” The city became almost an island in flood time surrounded by ravines, the swamps, and creeks. In the early years of settlement, the floods did little damage because cabins were constructed out of harm’s way, but the floods obstructed travel. In April and May 1821 publication of the *Gazette* was suspended for a month because the editors had gone out of town and could not get back through the floods. On 10 May 1824 the *Western Censor* printed an apology for its limited outside news because the mail carriers were not able to

¹⁷⁰Dr. John N. Hurty in Indiana Sanitary and Water Supply Association, *Proceedings* (1908), 11, quoted in Kershner, 252-253.

¹⁷¹Kershner, 251-252.

¹⁷²Dunn, 1:8.

¹⁷³Demas McFarland in *Locomotive*, 13 June 1859, quoted in Dunn, 1:10; and Dunn, 1:8-11.

get out of or into town. In March and April 1826 the mails were stopped for some days due to flooding.¹⁷⁴

Flood Prevention

By the flood of 1828, greater damage occurred because farmers had begun to cultivate the bottom-lands. Flood waters washed away fences and covered fertile fields with sand and gravel. Property owners began building earthen levees to protect their land from flood waters, but the levees narrowed the current of flood waters, especially those built by river bank property owners.¹⁷⁵ When engineers designed bridges to cross the river, they were too short, and the bridges acted like dams during high water, restricting the flow of water and increasing its intensity.

As the settlement of Indianapolis progressed, humans encroached more and more on the existing environment of the site. The Indiana legislature passed an act on 4 February 1837 appointing a commission to oversee the drainage of the swamps and lowlands northeast of the mile square of Indianapolis. The legislators decided to cut a state ditch. The ditch disposed of the trouble with the ravines for about ten years until the banks gave way on 1 January 1847. The “water came down its old channels in volume that startled those who had invaded them.”

. . . Israel Jennings, who had been living peacefully at the northwest corner of Walnut and New Jersey streets, was awakened by a noise in the night, and on rising from his high-post bed to investigate went into water almost to his waist. He managed to get ashore with his family; and in the morning rescued his belongings by aid of a wagon and team. The flood of 1847 was quite general throughout the state, and did so much damage that the legislature provided for the reappraisal of real property that had

¹⁷⁴Ibid., 1:11.

¹⁷⁵Ibid., 1:11-13; and Divita, 17.

been injured, and for change of the tax duplicates to the extent of the injury.¹⁷⁶

The ditch was repaired, but it broke again in June 1858, and the waters again found their old channels. After another set of repairs to the ditch, it seemed to be fixed for good.

People forgot about the ravines. But, on 1 June 1875 a severe electric and wind storm followed by a deluge of rain visited the city. This time the waters surged through the fashionable residential district of the city flooding the first floors of homes in the vicinity of Twelfth and Pennsylvania. After 1875, the ravines were filled in so that the trace of their course was barely visible except in the occasional slope of street grades and lots. People did believe that the course of the filled ravines was traceable by “typhoid belts” along their old channels and tributary swales. Medical professionals did not attach much importance to this belief, but they did believe the old ravines affected wells which were commonly sunk only to the first level. In 1887, Dr. Samuel E. Earp, the first city sanitarian, noted that the city’s water supply was not good because it was drawn from a swampy source.¹⁷⁷

Until the arrival of the first railroad in Indianapolis in 1847, the topography south of Pogue’s Run, which was rife with flood conditions, was of little importance to the city. Between 1860 and 1870, the city started expanding in that direction as a result of the railroad, and the city turned its attention to this troublesome area. Lake McCarty was one of the natural features causing problems; the “Virginia River” was the other. In 1866, the Common Council of Indianapolis ordered Nicholas McCarty, Jr., to cut a ditch through his land to drain the pond into White River. In 1868, the Common Council adopted a more permanent solution by levying a sewer tax of 15 cents on each \$100 of property

¹⁷⁶Dunn, 1:13.

¹⁷⁷Ibid., 1:13-14.

value and appropriated funds to build a sewer through Ray Street to the river to drain Lake McCarty. The ordinance also authorized McCarty to fill in the pond once drained. Likewise, the Virginia River caused problems. The Indianapolis Committee on Sewers classified this “so-called river” as a mere stream with a two-mile winding course beginning southeast of the Deaf and Dumb Asylum, passing down East Street and Virginia Avenue, and ending at Pogue’s Run, but after heavy rains, it transformed into a swiftly flowing stream from 15 to 100 feet wide and deep enough in places to “swim a horse.” With the growth of the city, the river became obstructed by street grades and culverts, it started forming deep ponds along its course, and its channel was deep and rapid, carrying a formidable body of water after heavy rains. The Committee on Sewers noted that these evils would increase with future street improvements; therefore, the Common Council approved lodging the river in the South Street and Kentucky Avenue sewer.¹⁷⁸

The city continually took steps to conquer its drainage and flooding problems, and in the process, White River and the surrounding landscape underwent dramatic changes. As the town of Indianapolis grew and progressed into a “modern” city, additional concerns rose to the surface. Garbage and human waste disposal became an important problem that, combined with drainage and flooding problems, had to be addressed by city administrators.

The Modern City

The introduction to the 1906 Polk’s City Directory for Indianapolis described the city’s growth in the following terms:

¹⁷⁸Ibid., 1:14.

Some time ago Indianapolis became noted as the largest inland city in the country; that honor still rests with us Another remarkable fact about the population of Indianapolis is that during the decade from 1890 to 1900, the city had a percentage of growth larger than any other city in America of its class.¹⁷⁹

This growth was attributed in part to the industrialization of Indianapolis. Industry brings environmental issues of one type, but the expanding numbers of people that accompany a booming industrial economy, brings other issues.

Indianapolis hired Moses Brown, the outstanding sewerage engineer in the nation at the time, to plan a sewerage system for the city. By 1873 the city had constructed 10 miles of conduits at an expense of \$200,000. Similar to systems adopted in other cities during this time, the sewer system dumped into White River. The real purpose of the sewers was draining storm waters to prevent flooding city streets. The city continued to rely on privies or mere dumping in the yard or alley for human waste disposal. By 1893 “the accumulated filth of one hundred thousand people was enough to turn the stomach,” and the city hired Rudolph Hering, a New York sanitary engineer of national reputation, to devise a new system. Hering’s plan provided for a city-wide system of conduits, with artificial and natural flushing, but the system discharged its contents into White River.¹⁸⁰ (See Figure 16.)

The city initially had no provision for disposal of garbage or trash, which people simply buried in their yards or dumped into White River. Finally, in 1873 Indianapolis purchased the Sellers Farm just south of the official borders of West Indianapolis as a future dumping ground, and in 1875 arranged for collection of garbage by contractors for deposit on the Sellers Farm at the expense of residents. Unfortunately, an economic

¹⁷⁹Polk, *Indianapolis City Directory for 1906*, 75.

¹⁸⁰Kershner, 261-262; Scarpino, 202.

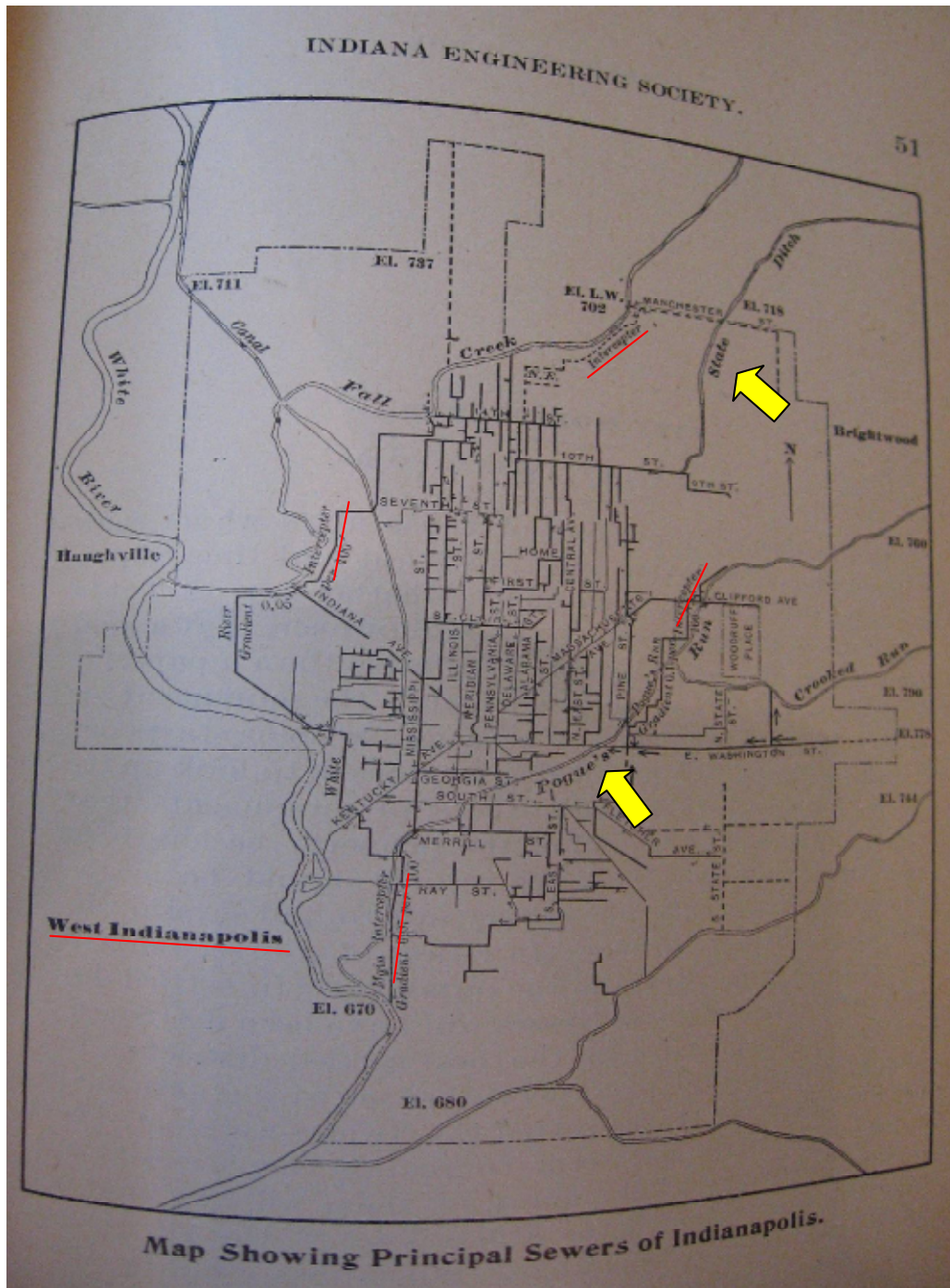


Figure 16. Digital photograph of “Map Showing Principal Sewers of Indianapolis,” *Proceedings of the Seventeenth Annual Meeting of the Indiana Engineering Society held at Indianapolis January 7, 8, and 9, 1897* (Greenfield, Indiana: Herald Publishing Company, 1897), 51. Courtesy of the Indiana State Library.

depression slowed progress and residents did not want to pay the collection fee. By 1895 people were still throwing over ninety-five percent of their refuse into privy vaults, cellars, and alleys. Mayor Taggart decided that the city must take responsibility and inaugurated free city collection of refuse, which after three years made a noticeable difference in city streets and back yards.¹⁸¹

By the end of the nineteenth century, the city's growth had created serious environmental problems for the river. Flooding took on more significance, because flood water was not only a nuisance, it was dangerously unhealthy. The river regurgitated what had been dumped into it by the city's residents and businesses. The 1906 Proceedings of the Indiana Engineering Society reported on the state of White River:

A black deposit of oily, foul, animal and vegetable matter can be raised from the bed for miles. The weeds are coated with grease and with sewage plants. Flats are covered with blackening offal; driftwood collects dead hogs and other animal refuse where they putrefy. The odor is distinct for 40 miles down the river. Animals will not drink it. It cannot be used for the laundry or other domestic purposes when the cisterns and wells go dry.¹⁸²

The river also contained a large quantity of industrial waste from mills and strawboard factories.¹⁸³

In addition to efforts to gain control of refuse and human waste disposal, the city undertook another project shortly before the 1913 flood, which was influenced by the country's Progressive Era and "city beautiful movement." George E. Kessler, a landscape architect and city planner who had been hired by the city on 1 February 1908, designed a park and boulevard system for Indianapolis. Kessler intended to manipulate the natural setting in Indianapolis to serve many functions at one time: quality of life

¹⁸¹Kershner, 253-254 and 262-263.

¹⁸²Indiana Engineering Society, *Proceedings* (1906), 112, quoted in Kershner, 271.

¹⁸³Kershner, 271.

improvement, beautification, improved automobile thoroughfares, and flood control. He wanted to “reclaim the garbage-strewn banks and polluted waters of streams in order to provide a natural beauty to the boulevards” based on methods he learned in Europe.¹⁸⁴ As noted by Kessler, “Only those familiar with the conditions in most European cities where river improvements have been of first importance will realize the vast difference between conditions in such cities and those presented on your water front.”¹⁸⁵ Kessler applied his appreciation for European form to the conditions in Indianapolis by merging the City Beautiful tenets of design with practical considerations, where function and beauty were equally considered.¹⁸⁶ This project, underway in 1913, was an exception when city administrators acknowledged the potential positive attributes of the river.

Although considered a political movement, the City Beautiful movement was also a social movement. Similar to other American cities in the early twentieth century, Indianapolis had changed from an agrarian society to an urban society centered around industry with these changes occurring rapidly over the course of a few decades. The City Beautiful movement reflected the struggle by people to achieve a standard of modern living that inserted beauty and comfort into their lives while also taking advantage of newly-acquired scientific knowledge. The movement reflected the response by people to the changes brought to society by industrialization on one hand and the growing realization of health concerns on the other. Industrialization improved the economy, but it regimented lifestyles and transformed pastoral landscapes into urban spaces.

¹⁸⁴Tina Jones, Meg Storrow, Paul Diebold, and Amy Walker, “Indianapolis Park & Boulevard System,” National Register of Historic Places Registration Form, September 18, 2002, Section 8, 19. Indiana Division of Historic Preservation and Archaeology.

¹⁸⁵*Ibid.*, quoting George E. Kessler from the 14th Annual Report of the Board of Park Commissioners, 1908, Purdue University Library, 23.

¹⁸⁶Jones, Storrow, Diebold, and Walker, Section 8, 4.

By 1880 scientists had proven the germ theory. Progressive Era city administrators began to promote clean water and good health as requirements of the modern society. As Suellen Hoy describes in *Chasing Dirt* (1995), “personal health and comfort forced private individuals to take an interest in their neighbors’ sanitary condition.”¹⁸⁷ Cleanliness became the national expectation with scientific backing, but “the disturbing possibility lurked that not everyone would share or practice it. Like other features of progressivism, public sanitation and personal cleanliness retained a lingering middle-class, indeed upper middle-class tincture.”¹⁸⁸ Flood control and cleanliness became intertwined and signified progress. If a sector of society did not conform, others took note.

Flooding in West Indianapolis

The word victim was spoken often following the “Great Flood.” Those who found themselves in the path of the flood waters were referred to as “flood victims.” The city itself was a “victim” of the flood. The flood reiterated the fearful and distrustful relationship with the river.

People living on the Hill in West Indianapolis, just beyond the flood zone, worked all night, rescuing survivors from their homes in the Valley. Mayor Samuel L. Shank created a committee of community volunteers to provide charitable relief and basic necessities to the affected families. This committee, along with other charitable organizations, collected contributions and worked to distribute aid to the flood victims in

¹⁸⁷Suellen Hoy, *Chasing Dirt: The American Pursuit of Cleanliness* (New York: Oxford University Press, 1995), 65.

¹⁸⁸*Ibid.*, 86.

the form of food, clothing, furniture, etc.¹⁸⁹ The federal government provided assistance when President Woodrow Wilson sent financial aid, United States sailors to provide assistance, and a message of sympathy and encouragement to flood victims.

The churches in West Indianapolis pitched in to help. Reverend Joseph Weber opened the Assumption Church as a temporary home for over three hundred people who found themselves homeless after the flood. He aided in delivering the message of their suffering to the rest of the city: “Only those of us who live among and know the poor can appreciate the great suffering and the great need of assistance . . . They are all good at heart and it is the fault of society, mainly, that they are placed in such a position that they can not help themselves when calamity falls upon them.” Reverend Weber served as a mediator and coordinator in the rescue and salvage efforts, and he offered the rectory at Assumption Church to serve as a Red Cross station.¹⁹⁰

The people of Indianapolis temporarily put aside any social differences and assisted those in need. Adeline Claghorn’s family originally went to the Salvation Army until her school teacher, Miss Ruth Allerdice, spotted them and insisted that Adeline, her mother, and her two sisters stay with them. Miss Allerdice lived with her parents, who were wealthy people in the meat packing business and owned a home at 1212 Park Avenue. Adeline, impressed by their servants and the elegance surrounding her, said she “had never been in such a grand and beautiful home.”¹⁹¹ The aid soon ended, and people

¹⁸⁹See Indianapolis General Relief Committee for Flood Sufferers, March 26, 1913 to December 29, 1913, appointed by Mayor Samuel Lewis Shank March 26, 1913 and disbanded upon the completion of its duties December 29, 1913, *The Indianapolis Flood of March, 1913, and Measures for Relief of Flood Victims*, (Indianapolis: Cornelius Printing Company); “Rush of Money to News Flood Fund,” *Indianapolis News*, 27 March 1913; and Edith Habbe, “The Indianapolis Flood of 1913: A Study of Disaster and Permanent Dependency Based on 2332 Families Receiving Rehabilitation Aid After the 1913 Flood,” (M.A. thesis, Indiana University, 1920).

¹⁹⁰Reverend Weber quoted in Divita, 23; Divita, 17-20; and Wolfer, 3.

¹⁹¹Haine, 13-14.

attempted to return to their normal lives. They tried to clean up the muddy, unhealthy mess the flood left behind. (See Figure 17.)

Day after day, the headlines and stories in the local newspapers reported on the conditions in West Indianapolis: looting and arrests, the dangers of disease, guards posted to prevent anyone who did not live there from entering the area, health advisors sent in to counsel on proper cleaning methods, women scooping mud from carpets with shovels, children playing on mud-covered porches, and troublesome drainage problems. In the midst of these reports, the *Indianapolis News* included a report that “many of them had lost what to them was a great deal. There are days of discomfort and work ahead of them, but the end of the flood and the opportunity of getting back home was a happy incident, and more than one whistled as he started the work of cleaning house.”¹⁹²

Certainly, the people in West Indianapolis resolved to get back home and back to work. The task of doing so was overwhelming, especially for those living in the Valley. The people of West Indianapolis received aid, locally and federally, but this flood had dealt a life-changing blow. Newspaper reporters delivered messages to the residents of Indianapolis that this area was unclean and unfit, while at the same time reporting that the people of West Indianapolis had happily moved back without regard to the health risks.

Those outside the flooded area wanted to distance themselves from the disaster. The caption under a large photograph on the front page of the *Indianapolis News* on 29 March 1913 stated that “Astor Street on the west side of Indianapolis, presented an excellent example of the insanitary conditions that caused the city board of health to take stringent measures in guarding against disease. In the water, which stood in pools, were

¹⁹²“Men Repair Their Homes,” *Indianapolis News*, 28 March 1913.



Figure 17. Looking North on Coffey from Ray Street, 1913 (Jay Small Postcard Collection #P0391). Courtesy of the Indiana Historical Society, Digital Image Library.

dead chickens and other animals.”¹⁹³ (See Figure 18.) The flood tore away one corner of the Hilgemeier meat packing plant forcing a group of men to move the meat, which was fresh when the flood came, by crossing the water and mud on temporary footbridges of planks and posts. Mrs. Gish, a resident from the Hill in West Indianapolis noted for the *Indianapolis News* that “it was feared the food supply might be short today. There was talk, she said, of trying to break into some grocery stores in the flood district.”¹⁹⁴

Because of the flood emergency, the Common Council of Indianapolis introduced a city ordinance on 16 April 1913 to become effective immediately that required daily police inspections in the city to determine whether conditions were dangerous or unsanitary and whether there were any violations of any city ordinance. The ordinance required each police officer to complete daily written reports with a description of the unsanitary or dangerous condition, the name of the offending person, and the names of any witnesses. If the premise was not cleaned or the danger not removed within five days, the police officer must file an affidavit charging the person with the violation. The police reports were declared to be public records for the use and benefit of the public at large and for the city of Indianapolis.¹⁹⁵

Negative labeling following the 1913 flood further separating the flooded area from the rest of the city. A year after the flood, the *Indianapolis News* reported that the

¹⁹³“A Reason Sanitary Measures are Necessary,” *Indianapolis News*, 29 March 1913.

¹⁹⁴“Men Repair Their Homes,” *Indianapolis News*, 28 March 1913; and “Hill Folk to the West Toiled Through Night,” *Indianapolis News*, 27 March 1913.

¹⁹⁵Common Council of the City of Indianapolis, Indiana, *Journals of the Common Council of the City of Indianapolis, Indiana, from January 1, 1913, to January 5, 1914* (Indianapolis: Sentinel Printing Company, 1914), 216-217. The Mayor of Indianapolis approved this General Ordinance No. 34 on 21 August 1913 after the ordinance was amended to restrict each patrolman’s inspection and reporting responsibilities to his own district; by the time of approval, the language regarding the existence of an emergency was struck.

Washington Street bridge still had not been repaired by the city.¹⁹⁶ The flood sufferers were victims of a disaster left to cope in an unhealthy environment. The property values of homes in the Valley were lower than homes on the Hill, and flooding highlighted this difference and entrenched the Valley in a negative identity. One West Indianapolis resident, who was interviewed in the 1970s, said, “When I was young, eyebrows would be raised if a girl or boy from the ‘Hill’ dated someone from the ‘Valley.’”¹⁹⁷

Following the 1913 flood, the city administrators rallied together to provide funds to meet the emergency needs. The Common Council of Indianapolis approved issuing municipal bonds and transferring money from one designated fund to another for the purpose of addressing flood repairs, providing charitable aid to flood victims, preventing contagious diseases, surveying the river, and any other need arising following the flood. The city had been through this process before.

A comparison of entries in the Journal of the Common Council following the 1913 flood with those following the last major flood in 1904 shows that the responses were practically identical. In 1904 city administrators immediately called a special meeting of the Common Council and appropriated a total of \$225,000 for purposes of the flood (\$200,000 in municipal bonds plus a \$25,000 transfer to an emergency fund). Likewise, in 1913 city administrators immediately called a special meeting of the Common Council and appropriated a total of \$225,000 for purposes of the flood

¹⁹⁶“West Indianapolis Brighter and in Better Condition Than Ever Before Despite its Privations; On the First Anniversary of Its Great Flood,” *Indianapolis News* 21 March 1914.

¹⁹⁷Wolfer, quoting a local resident, 3.

(\$150,000 in municipal bonds plus two transfers to an emergency fund, one in the amount of \$50,000 and another in the amount of \$25,000).¹⁹⁸

Although experts refer to the flood in 1913 as the “Great Flood,” with one-hundred-year levels, widespread damage, and an entire area of the city, including the vital union stockyards and belt railroad, inundated and cut off from the rest of the city, the Common Council devoted no greater resources to the “Great Flood” than the last major flood. It was just another flood in Indianapolis. Unfortunately, in West Indianapolis, the 1913 flood was not like any of the others.

The Great Flood of 1913 occurred at a crucial time in history for the people in West Indianapolis. Indianapolis had been in existence for almost a century and during that time its citizens had used and exploited the landscape and river. The city had grown in population and changed from an agrarian town to an urban society reliant on an industrial economy. With these changes came even greater demands on its landscape and river. Shortly before the 1913 flood, the city, along with the rest of the nation, began to make scientific discoveries that highlighted the connection between health and sanitary conditions. The city became attuned to cleanliness, which heightened awareness of the unhealthy river and its tendency to flood. Flooding was now not only a nuisance but also a fearful, despised occurrence. The river had been “sloshed around any old way,” and it was now dishing it back to the city.¹⁹⁹

¹⁹⁸Common Council of the City of Indianapolis, Indiana, *Journals of the Common Council of the City of Indianapolis, Indiana, from October 15, 1903 to December 31, 1905, Inclusive* (Indianapolis: Sentinel Printing Company, 1906), 162-171; and Common Council of the City of Indianapolis, Indiana, *Journals of the Common Council of the City of Indianapolis, Indiana, from January 1, 1913, to January 5, 1914* (Indianapolis: Sentinel Printing Company, 1914), 203-207, 234, 276, 299, and 370-371.

¹⁹⁹Kemper, 9 (page citations are to the reprint edition).

By 1913, generations of Indianapolis residents had withstood almost a century of flooding. Yet, this flood exceeded all others. Following the 1937 flood the Indiana State Planning Board prepared a report on Indiana flood damages noting that monetary damages from floods prior to 1913 were less partially because the investment in physical improvements was considerably less in the younger days of the state. According to the Board's report, "it may be stated definitely that floods are becoming more severe with the more extensive cultural use of the land."²⁰⁰

Citizens living in West Indianapolis were the people working in and living among the great manufactories of Indianapolis, but they were now associated with filthy flooding conditions. The people in the path of flood waters bore the brunt of the focus on cleanliness. The folks living in grand homes on Park Avenue benefited from the economic improvements brought by this new industrial economy, but they had the additional benefit of living far from the river and surrounding landscape.

²⁰⁰“Indiana Flood Damage,” by Dennis O’Harrow, State Planning Board of Indiana, February, 1937, located at the Commission on Public Records, Indiana State Archives.

CHAPTER 4: PUBLIC POLICIES AND THE ENVIRONMENT

The modern world is forged amidst our inattention.

--Richard White, *The Organic Machine*

While the community of West Indianapolis was forming and solidifying on the fringes of Indianapolis, a number of public policies developed that reflected the residents' relationship with White River and ultimately how the river gave meaning to this urban space. Environmental history, urban history, cultural history, and planning history converge in public policies. But, as John A. Agnew asserts in *Place and Politics* (1987), "political behavior is intrinsically geographical." Agnew further suggests that "policy outputs" reflect "place-specific social-geographical bases," and "to the extent outcomes are similar across places, one can talk of 'types' of place, but it is in specific places that the causes of political behavior . . . are to be found."²⁰¹ This chapter reviews the strength of Agnew's argument when applied to West Indianapolis.

Public policies originate with people, yet the average person living in West Indianapolis around the turn of the twentieth century probably gave little attention to policymaking. Such matters as reviewing details of municipal ordinances and regulations, introducing bills and lobbying for passage of state laws, or monitoring to determine who really benefited from policies that governed their daily lives were left to the so-called experts. In any event, the policies that became important to the residents of West Indianapolis in the aftermath of the Great Flood of March 1913 were in many cases policies that had been implemented by people gone long before the arrival of the residents who were present in 1913. Prior chapters discussed those earlier people who

²⁰¹John A. Agnew, *Place and Politics: The Geographical Mediation of State and Society* (Boston: Allen & Unwin, Inc., 1987), 6 and 44.

did concern themselves with how the river and the land in West Indianapolis would be used and developed. This chapter delves into larger movements that often go unnoticed and how those outside influences interfaced with local policies. This focus reveals how certain factors, seemingly beyond the average person's control, resulted in public policies that changed the environment in West Indianapolis.

This chapter also explores the types of relationships believed to exist between people and nature, who or what possessed the power in that relationship, and what movements or trends emerged to affect that relationship. Environmental, urban, political, and planning historians provide a path to follow the history of thought in this regard. Throughout these historical studies, the culture of the place, created largely by the geography and manifested in the local tensions and power struggles, was the thread connecting public policies with environmental changes.

Historical Studies

In his landmark book, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920*, Samuel P. Hays highlights the conflicts between the proponents of the federal conservation movement, whose platform rested on multiple-use programs for the country's resources, and local concerns about rights to resources.²⁰² The progress made by supporters of the conservation movement was often slowed and transformed into something different than originally intended by interference from various federal agencies, scientists, and engineers, and in small measure from local people who would be impacted by proposed programs. Hays's work in this book is of

²⁰²Samuel P. Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920* (Cambridge, Massachusetts: Harvard University Press, 1959; reprint, Pittsburgh: University of Pittsburgh Press, 1999), 100-105 (page citations are to the reprint edition).

particular interest because of his focus on the larger political movements and national trends surrounding 1913, the year of the “Great Flood.”

Following the Mississippi and Ohio River floods in 1912 and 1913, the debate about a federal flood control program intensified. Keeping with its long-standing position, the U.S. Army Corps of Engineers remained focused on navigation and failed to grasp the possibilities of multiple-purpose river development. As voiced by Brigadier-General Mackenzie, Chief of the Corps, in 1905, “partnerships or quasi partnerships between the Government and private persons or corporations have not been generally favored in the past, as experience has shown that they are apt to be attended by many annoying complications.”²⁰³ Thus, Hays reveals a muddled relationship with rivers, one in which local citizens and businesses had their own goals that sometimes conflicted with those of the surrounding region or matters considered in national jurisdiction. Not only did contention exist among local, regional, and national concerns, but conflicts also arose between viewpoints at each of these levels.

Hays illuminates the points of cooperation and conflict between the values of technology implicit in conservation and the competing values with which they came into contact. New forms of organization that arose during the Progressive Era extended networks of economic life into wider circles of influence, which drew people toward the larger centers of decision-making and power—the state and federal governments. But many geographical areas and communities were reluctant and fearful of the consequences and persistent loss of control over the conditions that affected them. By studying these political structures, Hays claims “the more significant context can come

²⁰³Brig.-Gen. Alexander Mackenzie to Secretary of War, Jan. 16, 1905, in War Department Circular No. 14 (GP #1665), quoted in Hays, 215.

into view and reveal history as a web of human interrelationships,” and “the rival systems of decision-making which have developed in modern society.”²⁰⁴

Other political and environmental historians, including those who have specifically considered Indiana, have presented relationships between federal and local factions that correspond with Hays’s work. Stephen F. Strausberg and Ann Vileisis reviewed the significance of the Swamp Lands Act of 1850 on America’s wetlands. Although the Swamp Lands Act was a federal policy, Strausberg argues in “Indiana and the Swamp Lands Act” (1977) that the lack of expertise and corruption involved with implementation of this Act in Indiana reflected the impact of local culture on its environment.²⁰⁵ The desire to control flooding and to reclaim barren wastelands overrode larger thinking about the possible long-term impact, especially downstream from drained swamps. The westward movement in America promoted land acquisition, and draining wetlands was one scheme the federal government implemented to accomplish this goal.

The 1863 Indiana Senate Journal referred to the “desolate waste” of Indiana that would be transformed into a “habitat for industrious, healthy, and happy people.”²⁰⁶ The Indiana Senate voiced its desire for advancement of society, not misuse of valuable wetlands. As Vileisis points out, destruction of wetlands began with cultural disdain for swamps coupled with recognition that wealth could be extracted from wetland properties.²⁰⁷ Indiana’s early settlers believed they were improving the land from its natural state of wastefulness and ridding the landscape of breeding grounds for mosquito-

²⁰⁴Hays, ix and xiii.

²⁰⁵Stephen F. Strausberg, “Indiana and the Swamp Lands Act: A Study in State Administration,” *Indiana Magazine of History* 93 (1977): 191-203.

²⁰⁶Indiana, *Senate Journal* (1863), 615, quoted in Ann Vileisis, *Discovering the Unknown Landscape: A History of America’s Wetlands* (Washington, D.C.: Island Press, 1999), 83.

²⁰⁷Vileisis, 347.

borne diseases. Indiana, unlike other states, decided to retain title to its swamplands, selling acreage to settlers with the understanding that the state would drain the land in the future. Unfortunately, due to a number of unforeseen events, including corruption at the local level, the state broke that promise.²⁰⁸

In keeping with the belief that national trends governed river relations, environmental and urban historians have pointed to the rapid, unprecedented changes in people's environments that resulted from industrialization. Samuel P. Hays focuses on how industrialization impacted people and their culture in *The Response to Industrialism: 1885-1914* (1947). Eager to take advantage of the opportunities for economic gains, millions of people from Europe and rural America poured into the metropolitan nerve centers and learned to cope with a new, impersonal economic environment. These industrial endeavors employed rivers to run mills, to dispose of waste, and cool mechanisms, making rivers an important component of industrialization. Theodore Steinberg discusses the commodification of water that coincided with increasing scientific expertise in *Nature Incorporated* (1991). A change occurred in how people understood and made use of the environment around them with the broadening industrial base and leap in production capacity. Steinberg argues that industrial capitalism was a system of ecological relations that altered human relations with the natural world. By the mid-nineteenth century, laws moved firmly toward an instrumental conception of water use and the widely-accepted support for maximizing economic growth.²⁰⁹

²⁰⁸Ibid., 84.

²⁰⁹Samuel P. Hays, *The Response to Industrialism, 1885-1914*, The Chicago History of American Civilization, ed. Daniel J. Boorstin (Chicago: The University of Chicago Press, 1947); Theodore Steinberg, *Nature Incorporated: Industrialism and the Waters of New England* (Amherst: University of Massachusetts Press, 1991).

Industrialization transformed urban geography, then spawned new ideas about urban living. Planning historians John D. Fairfield in *The Mysteries of the Great City* (1993) and William H. Wilson in *The City Beautiful Movement* (1989) state that urban plans were the result of orderly, conscious political decisions, even before the rise of professional urban planning. One such ordered movement occurred during the Progressive Era of the early twentieth century when the City Beautiful movement spread to cities around the country, including Indianapolis. The goal of this movement was to “influence the heart, mind, and purse of the citizen and to persuade urban dwellers to become more imbued with civic patriotism and better disposed toward community needs.”²¹⁰ The City Beautiful movement was a political movement that required environmental reorganization and urban planning that edged into functional concerns such as beautifying unsightly river banks and improving sewer systems, water supply, and flood control.²¹¹

These historians argued that changes driven by national trends, proponents of federal control of resources to improve efficiency, and a desire to maximize profits and economic growth were beyond the realm of everyday lives of common people. Other environmental and urban historians introduced the concept of unintended consequences, suggested unpredictable and messy actions on the part of engineers and politicians, and proposed that progress gathers momentum and changes occur whether people are paying attention or not.²¹²

²¹⁰William H. Wilson, *The City Beautiful Movement* (Baltimore: Johns Hopkins University Press, 1989), 2.

²¹¹John D. Fairfield, *The Mysteries of the Great City: The Politics of Urban Design, 1877-1937* (Columbus: Ohio State University Press, 1993); Wilson.

²¹²Andrew Hurley, *Environmental Inequalities: Class Race, and Industrial Pollution in Gary, Indiana, 1945-1980* (Chapel Hill and London: The University of North Carolina Press, 1995); Jared Orsi, “Flood Control Engineering in the Urban Ecosystem,” Chapter 7 in William Deverell and Greg Hise, eds.,

Whether ordered or disorderly, a series of relationships was always present. Historians have disagreed about who or what affected those relationships. While the government, at national, state, and local levels, has played a distinct role in environmental decisions, historians have also explored the impact of common people, the culture of a place, and the rivers themselves on public policies and the environment.

Samuel P. Hays emphasizes the need for “a sensitivity to the value assumptions” that occur in the course of urban planning in *Explorations in Environmental History* (1998).²¹³ Hays instructs historians to discover the social values on the human side of the equation to determine the history of public policy decisions. He notes that the first basic assumption of urban planning is a search for social control, reminding us that “planning is never divorced from power.”²¹⁴ The city was the focal point of increasing human congestion with its accompanying changes in urban environmental circumstance, especially in contrast with the less-pressed countryside, establishing tension in environmental conditions. Thus, Hays argues that urban planning in the twentieth century has changed in relation to changes in social values, especially the emerging values of environmental quality and tension with development values.²¹⁵

In *Environmental Inequalities* (1995) historian Andrew Hurley looks at groups of common people—middle-class white, working class, and African Americans—and the impact each group had on the environment in their community in Gary, Indiana.

Although these citizens may not have been thinking about the long-term effects and

Land of Sunshine: an environmental history of metropolitan Los Angeles (Pittsburgh: University of Pittsburgh Press, 2005); Richard White, *The Organic Machine*.

²¹³Samuel P. Hays, “Value Premises for Planning and Public Policy: The Historical Context,” in *Explorations in Environmental History: Essays by Samuel P. Hays* (Pittsburgh: University of Pittsburgh Press, 1998), 25.

²¹⁴*Ibid.*, 27.

²¹⁵Samuel P. Hays, “The Role of Urbanization in Environmental History,” in *Explorations in Environmental History: Essays by Samuel P. Hays* (Pittsburgh: University of Pittsburgh Press, 1998), 70.

possible unintended consequences of their actions (or non-actions), they nonetheless had a definite impact on their environment. By failing to fight methods of industrial waste disposal or, conversely, by fighting to relocate that disposal, distinct environmental inequalities occurred.²¹⁶ Although the groups examined varied greatly in their cultures and environmental goals, the example of Gary, Indiana, demonstrates that cultural landscapes take on clear character even though they are the result of decisions of innumerable individuals.²¹⁷

In “American Environmental History” (1985) Richard White calls the urban environment an “arena for conflicting pressure groups” and notes the particularly significant role women played in raising concerns with urban environmental problems.²¹⁸ Often women have stepped into the role of “municipal housekeepers,” presumably a logical step. As Hurley notes, it was middle-class women in Gary, Indiana, who joined the League of Women Voters and fought against development along the lakefront.²¹⁹

Urban planning historians in the twenty-first century have considered the influence of local people and culture on plans involving rivers, unlike earlier planning historians who focused entirely on orderly political systems. Blake Gumprecht, “Who Killed the Los Angeles River?” (2005), points to the importance of considering the context in which people from an earlier time made their decisions. The residents of Los Angeles viewed their river as a resource and little else; it was the city’s increasing reliance on the river for its water supply that first transformed it from a thing of beauty

²¹⁶Hurley.

²¹⁷Rapoport, 137.

²¹⁸White, “American Environmental History”: 330. For municipal housekeeping, see Suellen M. Hoy, “Municipal Housekeeping: The Role of Women in Improving Urban Sanitation Practices, 1880-1917,” in Martin V. Melosi, ed., *Pollution and Reform in American Cities, 1870-1930* (Austin: University of Texas Press, 1980), 173-198.

²¹⁹Hurley, 46-76.

into a concrete eyesore.²²⁰ Jared Orsi, “Flood Control Engineering in the Urban Ecosystem” (2005), turns to the institution of flood control itself. Orsi acknowledges the influence of human history on the river, but he claims that the failure of Southern California’s flood control efforts was a failure born of the interaction between unpredictable and messy engineering and unpredictable and messy politics. He notes that “systems for imposing the order of engineering on unruly nature have often failed because both engineering and nature are unruly. Flood control has, therefore, become an exercise in substituting one disorderly system for another.”²²¹

Environmental and urban historian Matthew Klinge, “Changing Spaces” (2006), endorses spatial stories that tell how “humans wield power over one another with nature as their instrument” thereby merging urban social history with urban environmental history.²²² Klinge suggests that by looking at what nuisances or problems were deemed worthy of attention, historians can map social power against shifting landscapes through time. “Transforming nature and generating inequality are linked, often inextricably so.”²²³

Planning historian Robert Fishman discusses the different theories among planning historians, noting that many have promoted an elitist notion that city planning is for experts, underrating contributions of non-professionals to urban form and vitality. On the other side, planning historians, such as Jane Jacobs and Richard Sennett, fell into a class of “anti-planners” who believed that a city’s order must be truly social, built up out

²²⁰Blake Gumprecht, “Who Killed the Los Angeles River?”, Chapter 6 in William Deverell and Greg Hise, eds. *Land of Sunshine: an environmental history of metropolitan Los Angeles* (Pittsburgh: University of Pittsburgh Press, 2005), 134.

²²¹Orsi, 151.

²²²Matthew Klinge, “Changing Spaces: Nature, Property, and Power in Seattle, 1880-1945,” *Journal of Urban History* 32, no. 2 (2006): 198.

²²³*Ibid.*, 224.

of the plans of thousands of individuals. John D. Fairfield suggests that these two camps—the assumption that the average citizen is incompetent in the face of complex urban problems and the assumption that certain forms of urban development are inevitable—are still the most serious obstacles to accomplishing a “democratic form of planning.”²²⁴ Therefore, the institution of urban planning has inserted its own power struggles into the environmental equation.

More recently, historians have explored the integral role the rivers themselves have played in urban environments. In *Organic Machine* (1995), environmental historian Richard White asserts that the river was a viable part of the culture of a place with the power to “rearrange the world,” a much larger role than historians have acknowledged in the past.²²⁵ While he contends that rational human values guided endeavors to control the river, unintended consequences often occurred. The river reacts in predictable ways: if you narrow its bed, its flow intensifies. The energy of the river continually fights back establishing a give and take relationship. White argues that the central insight gained from the Columbia River is that there is no clear line between us and nature.²²⁶

Looking at the city one most readily associates with its river, urban geographer Pierce F. Lewis, *New Orleans: The Making of an Urban Landscape* (2003), argues that the location of New Orleans helped determine the kind of place it was to become. The site, like the city itself, resulted from the river’s behavior over the last 1,000 years.²²⁷ Likewise, urban environmental historian Ari Kelman, *A River and Its City* (2003), focuses on the New Orleans site, and notes that before “our modern-day paved road,

²²⁴Fairfield, 12-13.

²²⁵White, *The Organic Machine*, 3.

²²⁶Ibid., 68 and 109.

²²⁷Lewis, 19-20.

railroads, and air travel—all technologies circumventing the vagaries of geography—rivers served as highways of commerce.”²²⁸ Jean-Baptiste Le Moyne, sieur de Bienville, “saw only a magnificent system of watery roads, a tapestry of commercial empire woven from the strands of the river system’s watercourses.”²²⁹ Bienville perceived the river as a gift and was blinded to the challenges of building a city on the delta. Kelman argues that the river has been an active participant in the city’s development—the most important mental and physical landmark for residents, shaping not only ideas about the city, but also molding the city spatially.²³⁰

As argued by both Kelman and White, historians cannot separate people from nature. In New Orleans, a reciprocal relationship existed between residents and the river and characterized its environmental history. The river was an actor in many ways, not the least of which was creating tension by flooding and by producing urban space.²³¹ According to Klinge, scholars of environmental history often overlook the animate role of nature itself. He argues that nature is “dynamic, it sets boundaries, and it exacts penalties;” nature is “more than just a stage.”²³² Undeniably, the White River rose above its banks and exacted penalties on West Indianapolis in 1913. The people who found themselves in its vengeful path during the flood probably felt that the river had taken on a life of its own.

Political Ecology

The field of political ecology contextualizes environmental problems by focusing on policy. With such predecessors as Alexander von Humboldt (1769-1859), the

²²⁸Kelman, 5.

²²⁹Ibid., 4.

²³⁰Ibid., 8.

²³¹Ibid., 14-16.

²³²Klinge, 199.

“grandfather of modern geography” who led the way for human-environment research, and Peter Alexeivich Kropotkin (1842-1921), arguably the first political ecologist who extended the anti-thesis to Darwin’s social claims, political ecology lends a crucial component to environmental history studies.²³³ The field emerged in the 1970s and is an “umbrella term for the study of ‘politics’ and the ‘environment’” often conforming to a “specific set of enquiry to examine the social origins and political ramifications of degradation, as well as differential access to natural resources and how ecological problems are defined.”²³⁴ The common narratives that appear in political ecology studies are: degradation and marginalization; environmental conflict; conservation and control; and environmental identity and social movements. The goal is to explain why environmental systems and social systems change.²³⁵

In *Political Ecology* (2004) Paul Robbins discusses degradation and marginalization in the Amazon, which oddly has much in common with West Indianapolis. In “‘Political Ecology’ of Amazonia” (1987) and *Contested Frontiers in Amazonia* (1992), M. Schmink and C. H. Wood address the political ecology of the Amazon in terms of surplus accumulation. Struggles for control of the forest occurred between indigenous people and non-indigenous laborers, who were governed by communal land systems and redistributive economies, and more powerful investors and landowner groups, who were driven by market production, competition, and commercialization. Schmink and Wood note, “as class stratification increases under

²³³Paul Robbins, *Political Ecology: Critical Introductions to Geography* (Malden, Massachusetts: Blackwell Publishing, 2004), 17-26.

²³⁴Ross E. Mitchell, ed., *Thorstein Veblen’s Contribution to Environmental Sociology: Essays in the Political Ecology of Wasteful Industrialism* (Lewiston, New York: The Edwin Mellen Press, 2007), 6.

²³⁵Robbins, 5 and 13-18.

conditions of market expansion, an increasingly hierarchic arrangement of groups will struggle over the ‘surplus’ that comes out of the forest, inevitably overextracting.”²³⁶

In West Indianapolis, early settlers bought large tracts of land initially for farming purposes, but the landowners’ heirs sold the land as more profitable uses such as railroads, stockyards, and industry became apparent. The land was “improved” by means of filling ravines, draining swampland, building levees, and straightening the river. At the same time, these new businesses were polluting the river, soil, and air. As more profitable uses were “extracted” from the land in West Indianapolis, the environment and living conditions in the community changed and became unhealthy and dangerous for very different reasons from the original miasma of low-lying land. The residents became second-class citizens to the powerful businesses and government officials interested in improving the economy of the capital city.

Robbins describes a parallel but distinctly different approach rooted in philosophy and economics introduced by Karl Marx in 1867 and referred to as materialism. This theory attributes environmental degradation to capitalism—specifically, the politics of class struggle, industrialization, and capital accumulation—and highlights the relationship between nature and society. In other words, if society is “rooted in production,” then it stands to reason that social organizations “are ultimately explained by how people use nature.”²³⁷ The materialist interpretation fits the case of West Indianapolis where local residents were “drawn into market economies” that organized the “flow of capital into the hands of investors, landowners, and non-residents” and “pushed aside” settlers and land buyers. Entrepreneurs came to West Indianapolis to start

²³⁶Ibid., 134.

²³⁷Ibid., 45-46.

businesses; however, research shows that the majority of people who established businesses in West Indianapolis lived elsewhere in Indianapolis. A number of people also moved to West Indianapolis to find jobs with the “great manufactories.” On the other side of the river, these “peasant settlers” were “linked into” the capitalistic, industrialized economy. As Robbins notes, “degradation follows this process of enclosure and modernization, in turn driving more intense extraction: classic political ecology.”²³⁸

Historians and geographers reflect the many ways of viewing a city’s relationship with its natural environment and especially its river. But, in study after study, the push-and-shove relationships among politicians, experts, common people, and nature directed the environmental impact. The source of the power struggle may have occurred at the federal level or local level, between political agencies or people, between people and their landscape, or between different forces of nature. In any event, these historians and geographers demonstrated multi-dimensional relationships—composed of multiple, overlapping struggles—that did not occur randomly. Even though people may not have been paying attention, their actions converged into a culture that determined public policies affecting the environment.

Although this may echo a declension narrative, it reinforces the link between citizens and the river and reminds us that “what is real is the mixture of natural and cultural.”²³⁹ One important component was the intent and beliefs of people involved in these power struggles. Their intent was improvement—of land, unhealthy conditions,

²³⁸Ibid., 135.

²³⁹White, *Organic Machine*, 111.

technology, urban spaces, and economic conditions. Unfortunately, unintended consequences often occurred.

Knowing that outside forces can affect the local environment is important. Yet, each place is different. Therefore, historians must look at the ways in which the particular city, state, citizenry, and geography interfaced with outside influences—how the power struggles played out locally.

Municipal Powers

The structure of municipal government in Indianapolis was similar to many other cities founded in the early nineteenth century. Until 1832 city government did not exist separate from state laws as enforced by courts and county and township officers. Indiana towns were organized solely on the “will of the people.”²⁴⁰ Beginning in the fall of 1832, Indianapolis organized with a mayor-council system of checks and balances. The mayor held little power serving merely as the presiding officer and police judge, while the council carried on all executive functions through multiple committees. This structure resulted in “hodge-podge administrative procedures,” a lack of expert oversight, and irresponsibility from overexercise of the checks and balances idea.²⁴¹

A review of the proceedings of the Common Council from 1877 to 1915 provided insight into the contemporary matters of concern. The Common Council was responsible for all matters relating to operation of the city; consequently, a great deal of time was divided among mundane tasks such as naming streets, building bridges, annexing suburbs, regulating plumbing, and regulating public health matters such as spitting on sidewalks, milk inspections, pest houses, etc. The Common Council was also the

²⁴⁰Dunn, 1:112.

²⁴¹Kershner, 134-135.

platform for accomplishing any matter that involved an expense, presumably any expense associated with building levees and retaining walls. Therefore, if these flood control actions occurred, they would be reflected in the journals of the Common Council.

The journals during these years did include a sprinkling of entries relating to matters one would associate with flood control. The journal for 1913 referenced necessary emergency repairs for a levee on the west bank of White River that would have protected West Indianapolis from an overflow.²⁴² Therefore, the city appropriated funds to repair levees in emergency situations, but the records do not reflect that the city administrators authorized the expense for building the levees. Instead, landowners had shouldered this liability for the protection of their individual holdings.

Missing from the journals was consistent attention to flood control measures. When reviewing the journals of the Common Council, one might expect to find regular entries for flood control reflecting that construction and maintenance of levees, retaining walls, and drainage systems were revisited each year. After all, Indianapolis had been established on the site of a “vast mudhole,” and city officials would reasonably give priority to this underlying municipal concern. Instead, entries appear only in those years in which major floods occurred under the various governmental agencies that handled specific problems resulting from flooding, such as the Department of Public Works and the Department of Public Health and Charities. In other words, city officials took a defensive stance and responded after each flood occurred.

Over the years, a number of flood control projects were completed by city agencies. Unfortunately, floods occurred too frequently and there were too many areas of

²⁴²Common Council of the City of Indianapolis, Indiana, *Journals of the Common Council of the City of Indianapolis, Indiana, from January 1, 1913, to January 5, 1914* (Indianapolis: Sentinel Printing Company, 1914), 196.

town that needed attention. City administrators had filled in ravines, constructed wooden gutters to drain property of stagnant ponds, completed a drainage project on Pogue's Run (a swamp that spread through town), repeatedly repaired and reinforced the state ditch, and repaired levees in response to earlier floods. (See Figure 16 on page 103.) Interested parties rerouted the river southwest of town (on the Sellers Farm property) to omit a large loop that had exacerbated earlier overflows. (See Figure 19.) One might say that city administrators were overwhelmed with the list of projects that needed to be completed to fix the multiple problem areas in the city. One might also say that it was an impossible task. This riverine city was founded, and was growing and expanding, based on a relationship where the citizens dismissed the power, importance, and potential of the river.

Following the 1913 flood, the Indianapolis mayor and city administrators had grand plans to rebuild, shore up, and beautify the flooded areas of town. Unfortunately, the majority of these plans never came to fruition in West Indianapolis. Jacob P. Dunn, the City Controller for the City of Indianapolis in 1914, reported that the Board of Works budgeted \$15,000 and spent \$14,986.37 for flood repairs for the year ending December 31, 1914.²⁴³ In his report for the year ending December 31, 1914, City Engineer B. J. T. Jeup cites the most important engineering work for the year as preparation of plans for the improvement of the channel of White River and Fall Creek. The general plan of proposed work included building an extensive levee in the West Indianapolis area known as the West Side White River Flood Protection Work. In the first phase of this work, Jeup proposes elevating the Belt Railroad about three feet at its lowest point, constructing

²⁴³Indianapolis, Indiana, "Annual Message of Joseph E. Bell, Mayor of Indianapolis, with Annual Report of Heads of Departments of the City of Indianapolis, for the Year Ending December 31, 1914," (Indianapolis: Sentinel Printing Co., 1915), 13.

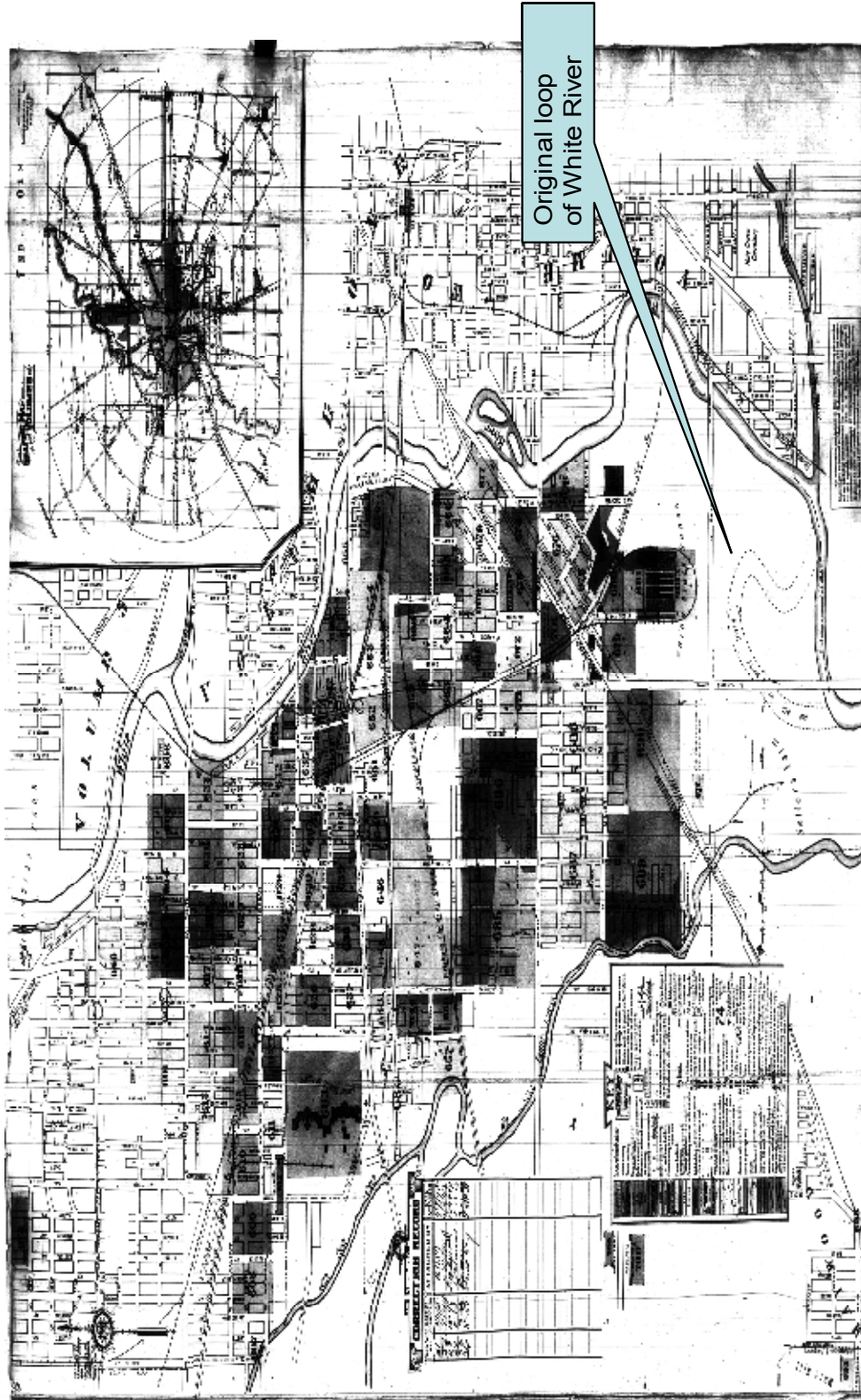


Figure 19. 1915 Sanborn Map of West Indianapolis. Courtesy of Indiana State Library, Microform Collection. (Compare to Figures 6 and 7.)

subways under railroad tracks with walls on each side, elevating the Washington Street driveway four feet above the high water of 1913, lengthening all bridges to prevent obstruction of the channel flow, and constructing weirs and dams to reduce the velocity of the stream. Jeup also discusses plans for the second phase that included levee improvements on the east side of the river and plans for the bridge at Meridian Street. Jeup states, “it is the purpose of the city in connection with this river work to comply with general plans of the Department of Parks for the construction of boulevards along the streams, it being the intention to turn the completed work with land acquired to the Department of Public Parks for maintenance and further improvement.”²⁴⁴

For the year ending December 31, 1915, Dunn, who was again the City Controller, reported that the Board of Works budgeted \$952,992.55 and spent \$781,413.61 for flood damage repairs and future flood controls.²⁴⁵ This substantial increase indicates that the city implemented Jeup’s plans announced the prior year. The annual report of the mayor in 1915 discusses building a levee and a flood prevention boulevard, and plans for the water line of the river to be beautified for park purposes. Mayor Joseph E. Bell boasted that “no other city in the great flooded district of 1913 has yet secured and finally adopted plans for flood prevention” and commended Jeup for his quick planning and execution.²⁴⁶ Despite the boast and adopted plans, Indianapolis did not implement these plans for beautification along White River until the 1990s when White River State Park became a reality.

²⁴⁴Ibid., 75-76.

²⁴⁵Indianapolis, Indiana, “Annual Message of Joseph E. Bell, Mayor of Indianapolis, with Annual Reports of Heads of Departments of the City of Indianapolis for the Year Ending December 31, 1915,” (Indianapolis: Sentinel Printing Co., 1916), 31.

²⁴⁶Ibid., 15. Edward A. Leary included a list of the Mayors of Indianapolis showing that in March 1913 the Mayor was Samuel Lewis Shank, a Republican, who resigned on November 28, 1913. He was succeeded by Harry R. Wallace, a Republican, for the remainder of 1913 into 1914, who was succeeded by Joseph E. Bell, a Democrat, who served as Mayor during the years 1914 through 1918, Appendix I.

By 1915, the old mayor-council structure no longer existed, yet the remnants of disorganization remained. In 1877, the Indiana state legislature intervened to curb the discontent over the ineffective system of checks and balances and split the city government into a separate Common Council and Board of Aldermen with concurrent powers over finance and administration. But, political corruption, obstruction, boodle, and graft continued to spiral out of control in both the Common Council and Board of Aldermen. Finally, reformists' notions of how city government should be run won out and the City Charter of 1891 launched a new stage for Indianapolis as a "modern progressive city."²⁴⁷

Mayor Thomas S. Sullivan appointed a new Board of Public Works in 1891 with a stated purpose to oversee problems associated with the infrastructure of the expanding city. The Board was authorized under the 1891 charter pursuant to an act passed by the General Assembly of the State of Indiana, and the first meeting was held on 9 March 1891.²⁴⁸ Similar to the proceedings of the Common Council, the minutes of the Board of Public Works reviewed for the period 1891 to 1898 do not reveal significant attention to flood control issues, but two entries appeared in the minutes for 1891 relating to flood control. At the meeting held 15 June 1891, Charles Hilgenberg filed a petition on behalf of interested property owners for stone rip-raffing along banks of White River, but the board did not take any action. At the meeting held 26 June 1891, the City Engineer submitted a plat showing a proposed levee along White River, from Chestnut to Ream Street in Indianapolis; again, the board took no action.²⁴⁹

²⁴⁷Kershner, 137 and 140.

²⁴⁸*Minute Record: Indianapolis Board of Public Works, 1891 to 1899*, located at Commissioner of Public Records, Indiana State Archives.

²⁴⁹*Ibid.*, Book A, 154 and 170.

The minutes of the Board of Public Works do not include additional entries relating to flood control until a special meeting on 4 September 1895, when the following entry appeared:

Owing to the heavy rainfall of last night the Board instructs the Street Department to employ all necessary labor to patrol streets which, in the opinion of the Foreman of Street Repairs, would be affected by overflowing and to afford all needed relief to persons or property injured by such rain-fall. The Board instructed the City Engineer to inspect all sewers constructed in the city with a view of reporting to the Board their condition and to inspect the condition of bridges in the Pogues Run, Pleasant Run and Fall Creek districts and to report on the same. All street and sewer contractors were notified to look after the condition of streets entered into by them for the purpose of making such improvements. All the Gas Companies and the Water Company were instructed to look after the condition of trenches made by them in the streets of the city, and the City Engineer was instructed to notify all plumbers or other individuals excavating in the streets of the city to inspect the condition of trenches made by them. The Board then adjourned.²⁵⁰

At the meetings held the next few days, the minutes do not include any mention of the results of inspections or any further action needed. The next entry relating to flood prevention appeared a year later on 23 September 1896 when the board adopted specifications for the construction of a gate on the White River Levee for flood control purposes and ordered legal advertisement for bids on the work. On 7 December 1896 the board approved a bid by Enos Hege for construction of the flood gate.²⁵¹ In the meantime, the minute books include numerous entries regarding draining sewers into White River, filling in the state ditch at various intersections, and grading and laying asphalt or bricks for streets—actions that would increase flooding problems. Therefore, the department of the municipal government charged with overseeing the infrastructure needs for Indianapolis did not direct significant efforts toward flood prevention or focus

²⁵⁰Ibid., Book E, 137.

²⁵¹Ibid., Book E, 264 and 286.

on the interdependent relationship between the city's infrastructure and its river, streams, and creeks. When citizens attempted to involve local government in measures intended to address flooding problems, government agencies did not respond on a timely basis.

Municipal government in Indianapolis continued on the same path under the 1891 reformed charter as it had under the 1821 initial charter, which reformists considered elementary and antiquated. The board appears to have awarded work to contractors for building a bridge or flood gate based solely on the lowest bid in every instance. The minutes do not reflect a review of any other criteria. The local focus remained on expansion and dealing with each problem as it arose instead of an integrated system of improvement.

State Powers

Flood control policies in the capital city mirrored the approach taken by the state. When Governor Samuel M. Ralston appointed the Indiana State Flood Commission on 20 April 1914, the commissioners reported that "Indiana possesses no statutes applicable in any general way to its problem of flood control."²⁵² Despite recurrent flooding in the capital city and throughout the state, it was not until after the 1913 flood that any governor deemed it necessary to conduct a statewide program for flood control.

Governor Ralston explained his reasons for appointing the Commission as follows:

At the time of the appointment of the Commission, the flood of March, 1913, with its enormous losses, and terrible catastrophes, was fresh in the minds of our people, who realized that the efforts to solve local problems were limited by lack of knowledge of the elements of the problem, and inability to move effectively. . . . Flood plans which accomplished the protection of a city seemed to add to the danger of those down stream. These various persons looked to the State for advice. It was plainly

²⁵²*Report of the Indiana State Flood Commission submitted to His Excellency, Samuel M. Ralston, Governor of Indiana*, by E. W. Shirk, located at Indiana State Archives, Commission on Public Records, 15. [No date on the report, but the Commission held its first meeting on April 30, 1914.]

evident that the problem of flood protection must be solved from a wider viewpoint than that of the city or county, and even extended to the entire watershed. The line of thought was from the State to the Federal Government, which now through the agency of the United States Army, has jurisdiction over obstructions to navigable streams. . . . it was further realized that early action was desired.²⁵³

The Indiana State Flood Commission worked on several projects from May to December of 1914, including inventorying the cities and towns affected by the 1913 flood, compiling a river and flood map of Indiana, reviewing work of flood commissions from other states, collecting information on flood protection plans implemented in various cities, and writing a historical account of floods in Indiana. In its report, the commission stated that “plans for flood protection must be made on the basis of levee construction and channel improvement, and the removal of obstructions such as too narrow bridge openings, tree growth and dumps.”²⁵⁴ The commission concluded that, while state flood control legislation should be adopted, individual communities must protect themselves and form cooperative associations within river valleys.

In December 1914, the Indiana Chief Engineer’s Office published a bulletin titled “Flood Protection in Indiana” summarizing the causes of floods and reporting reliable information on flood protection plans. The bulletin was available for use by Indiana communities to prepare their own flood protection plans.²⁵⁵ The commission further concluded that the key to flood control lay in taking a scientific approach which required additional studies:

We also find that several of our important cities are in peril from future floods, and should begin to protect themselves at once. To many persons, floods appear to be visitations of Providence and to be beyond human provision and largely beyond human control. They are caused primarily

²⁵³Ibid., 2-3.

²⁵⁴Ibid., 11.

²⁵⁵Ibid., 4-5.

by natural phenomena that can be readily measured and the future occurrence of which can, to a very considerable degree, be foreseen and provided against through the proper analysis of sufficient and accurate scientific data.²⁵⁶

The economic impact of the 1913 flood directed the commission's findings too.

The commission noted that tangible losses exceeded \$25,000,000. In addition, the flood caused the loss of business goodwill, labor losses, and general welfare of the state. Thus, preventing floods was a matter of "vital importance," but the commission cautioned for

a wise regulation of flood preventive works so that they may not, while benefiting the particular locality for which they are designed, work hardship or damage upon other localities;--and so that, by the combining of the resources and activities of separate localities, in many cases more satisfactory protection may be secured at a less cost.²⁵⁷

The commission attached a Water Control Act to its report. The Act authorized organization of Water Control Districts and established a State Board to oversee such districts and "prevent the establishment or the continuance of stream obstructions, and to develop means for the protection of the lands and communities of the state against inundation."²⁵⁸ The commission's report and the Water Control Act did not speak to the effects of deforestation and soil erosion on stream obstructions. The commission clearly recommended levees as the sanctioned method of flood control despite the fact that levees had not protected the flooded communities.

The Indiana legislature and Governor Samuel M. Ralston approved the Water Control Act on 6 March 1915. Although the commission's reports emphasized the need for cooperative flood control, the act laid the burden at the feet of each municipality to address its flooding problems:

²⁵⁶Ibid., 10.

²⁵⁷Ibid., 14.

²⁵⁸Ibid., Section 1 of the Act.

Be it enacted by the general assembly of the State of Indiana, That whenever the board of public works of any city of the first class, being cities of more than one hundred thousand population . . . in protecting it from floods, that the construction of levees, dykes, the removal of obstructions and the dredging and control of any stream, the lengthening and reconstruction of any bridge or bridges thereover, the construction of walls, drains or other works either as separate pieces of work or in conjunction with the building of a street . . .

The act further authorized municipalities to set tax levies, establish flood prevention funds, authorize bond sales, apportion costs, limit indebtedness, and give power to boards of public works. Keeping a system of checks and balances, the act required approval by the city's mayor for work costing more than five hundred dollars.²⁵⁹

Not until Indiana lawmakers passed the Flood Control Act of 1945 did Indiana have a more comprehensive act to address the loss of lives and property caused by floods, the damage resulting from floods, and the protection of property. Lawmakers designed the Flood Control Act of 1945 to prevent and limit floods by regulating, supervising, and coordinating the design, construction, and operation of all flood control works and structures and the alteration of natural or present watercourses of all rivers and streams in Indiana.²⁶⁰ This 1945 law, as amended, continues to apply to flood control in Indiana today.

Federal Powers

In 1913 the country was still in its Progressive Era, and flood control was couched in complex and controversial discussions of multiple-use development projects for water resources. Samuel P. Hays argues that the “moral language of conservation battles differed markedly from the course of conservation events.”²⁶¹ Hays provides historical

²⁵⁹*Laws of the State of Indiana, 1915*, 143-148.

²⁶⁰West's Annotated Indiana Code (1998), IC 14-28-1-1.

²⁶¹Samuel P. Hays, *Conservation and The Gospel of Efficiency*, 1.

context for the conservation battles that occurred around the issue of taming the nation's rivers. President Theodore Roosevelt's administration worked out the general principles and the specific elements of a multiple-purpose approach to river development, which the New Deal put into practice over two decades later. Hays explains that enthusiasm for waterway development dovetailed nicely with the expanding views of hydrologists and engineers in the Roosevelt administration. The U.S. Geological Survey brought forward the concept of water as a single resource with many uses—wasted flood waters could, if harnessed, aid navigation, produce electric energy, and provide water for irrigation and industrial use.

The U.S. Army Corps of Engineers disagreed violently with the new turn of affairs in water development and refused to consider seriously a multiple-purpose approach. The Corps attacked the theory that forests retarded run-off or that engineers could devise an economical reservoir system. The Chief of the Corps, Brigadier-General Alexander Mackenzie, argued that river planning should subordinate flood control, hydroelectric power, and irrigation to navigation. He vehemently denied that federal river programs required greater coordination.²⁶²

By the spring of 1913 the water power struggle in Congress had deadlocked. Congress had stopped the Roosevelt policy, but conservationists had also blocked perpetual, free grants to private corporations. This stalemate halted all water power development on navigable streams. After a decade of legislative struggle the compromise Water Power Act of 1920 once more permitted development. This Act dealt

²⁶²Ibid., 91-109.

solely with water power and failed to realize the hopes of conservationists that power development would go forward as an integral part of a multiple-purpose river program.²⁶³

The history of the federal approach to water use that Hays recounts is enlightening in several ways. First, it reveals the significant federal battle that surrounded water use prior to the 1913 flood in West Indianapolis. That battle took years to resolve, and the result was one-sided. Conservationists were not satisfied because navigation was the sole survivor of the battle. The federal government focused its attention on navigable rivers while ignoring rivers like White River. Second, this history points out the contemporary assumption that the federal government had responsibility for widespread river control, development, and management. While Indiana legislators talked about coordinating efforts in the watershed, the law passed in 1915 did not enforce this thinking. This meant that state and local governments turned over river basin responsibility to the federal government and only addressed local issues without involving larger regional or river basin concerns. Meanwhile, the federal government became embroiled in a battle that overlooked smaller-scale, local issues and non-navigable rivers in its strategy. Lastly, this history highlights the legislative battleground that existed and consumed the lives of so many policymakers, but these events happened beyond the view of the common person living in West Indianapolis who ultimately bore the results of ineffectual flood control policies.

Powers of Citizens and Place

Turning from the role of government officials in flood control and looking instead to the citizens in West Indianapolis, specifically, and Indianapolis, generally, reveals how the relationship the residents had with White River also played an important role in flood

²⁶³Ibid., 121.

control. That role was in large part directed by urban geography. Urban geographer Sanjoy Chakravorty argues in the case of Calcutta, India, that the spatial structure of cities cannot be separated from the political and economic history of the place, as influenced by global and local events.²⁶⁴ The same is true for West Indianapolis. The low-lying, marshy land along the west banks of White River provided an ideal place, separate from the capital city's center and early residential districts, for industry to grow. Despite its separation by the river, West Indianapolis was crucially connected with Indianapolis and the surrounding region.

Indianapolis too had issues with swamps, ravines, and low-lying land with poor drainage, and the city and its residents had a long history of attempting to control these geographical facts. Furthermore, the region had a long history of economic struggle. Mayor John Caven understandably viewed the barren, overgrown land in West Indianapolis as the perfect place to expand the stockyards and add a belt railroad to serve the economic needs of Indianapolis, and Nicholas McCarty, Jr., saw this as an opportunity to profit from the land left to him by his father. The railroads established an anchor that attracted additional industrial ventures to the area.

The expanding industrial district drew people from nearby states searching for employment. The immigrants often chose West Indianapolis as their home as well, but a major component of West Indianapolis—White River—did not play a key role in their lives. White River was not navigable and was not essential to the livelihood of these young businesses and new residents, except its use as a waste receptacle.

²⁶⁴Sanjoy Chakravorty, "The Spatial Transformation of Calcutta" from "From Colonial City to Globalizing City? The Far-from-complete Spatial Transformation of Calcutta" in P. Marcuse and R. van Kempen, eds. *Globalizing Cities: A New Spatial Order?* (2000) in Nicholas R. Fyfe and Judith T. Kenny, eds. *The Urban Geography Reader* (New York: Routledge, 2005), 90.

Available sources provide very little information about actions taken by the residents and business owners of West Indianapolis independent of Indianapolis. The town of West Indianapolis was incorporated on 4 April 1882 (later incorporated as a city in 1894), and it was annexed to the city of Indianapolis on 15 March 1897. Therefore, its independent existence was short-lived. No local newspaper is extant and available for research. The town's ordinance book from 1883 to 1889 is available, but the ordinances dealt with the issues of a fledgling town instead of flood control. The ordinance book contains entries for inspections of slaughter houses and rendering factories, fines for prostitution, licenses for peddlers, regulations for saloons and billiard halls, fines for throwing stones and other missiles, and fines for loitering and vagrancy. The nearest mention of a matter that could have been related to flooding was an ordinance on 21 August 1882 that required permits from the Town Clerk before digging trenches or other excavations for purposes of laying pipes or draining water or fluids.²⁶⁵ In a town of this size, one might assume that the general citizenry involved itself in local government and the ordinances reflect their concerns.²⁶⁶ Yet, flood prevention or control are not part of the ordinances. It is possible that inhabitants took responsibility for and implemented any needed flood control measures to protect their property just as the earlier settlers on this landscape had constructed levees to control the river. Unless the river spilled over or breached the levees threatening the city as a whole, city administrators did not focus on the river.

The river and landscape did direct other endeavors by citizens. Similar to other cities in the late nineteenth century, women's organizations in Indianapolis stepped up to

²⁶⁵*Town of West Indianapolis Ordinance Book A (1883-1889)*, located at Commission on Public Records, Indiana State Archives.

²⁶⁶In 1882, there were 471 residents of West Indianapolis; see Dunn 1:440.

address health problems and provide municipal housekeeping assistance to city officials. In an article written by Hester M. McClung for the *Municipal Affairs, a Quarterly Magazine Devoted to the Consideration of City Problems from the Standpoint of the Taxpayer and Citizen* (1898), Miss Catherine Merrill and Mrs. R. S. McKee first conceived of the idea of the Indianapolis Sanitary Association in 1893, “the year of the cholera scare.” According to McClung, the Indianapolis Sanitary Association awakened “people of all classes” to the “importance of cleanliness as a health measure” and “marked the beginning of an era of steady advancement in the city’s ideals of cleanliness.”²⁶⁷ The association’s members formed standing committees to target markets, hospital and dispensaries, school buildings, garbage, clean streets, clean sidewalks and buildings, parks, literature, and emergencies. The members gave “unremitting attention” to inspection of wells, cellars, cesspools, and vaults, which caused health problems related to the city’s overall challenges with potable water, poor drainage, and frequent flooding. The association made great strides in conquering the garbage problem and eventually gained approval for a city garbage collection system provided at the city’s expense as well as a crematory to destroy the collected garbage until the end result was that “no stale garbage lurks in the back yard of even the veriest hovel.” The association’s parks committee circulated petitions that were signed by hundreds to fight against the pollution of streams and advocate the purchase of land for parks along water courses.²⁶⁸ While all of these matters were important for the citizenry, the association’s agenda did not include addressing flooding problems specifically.

²⁶⁷Hester M. McClung, “Women’s Work in Indianapolis,” *Municipal Affairs, A Quarterly Magazine Devoted to the Consideration of City Problems from the Standpoint of the Taxpayer and Citizen*, no. 2 (1898): 523.

²⁶⁸*Ibid.*, 523-526.

Another local concern involved the navigable status of White River. In 1899 a debate ensued regarding White River's navigable status. In order to keep boatmen from traversing the backwater in Riverside Park, Park Superintendent Power made a trip to the U. S. Army Corp of Engineers office in Louisville, Kentucky, to argue that the river "is not, and never was, and of right ought not to be, a navigable stream." Mr. Power was relying on the 1876 Indiana Supreme Court decision stating: "the court had judicial knowledge that White river in Marion county is not and can not be a navigable stream." According to U.S. Army Corps Captain Zinn, "we can pay no attention to State decisions . . . the United States courts and Congress are our authority." Captain Zinn "was so well fortified with historical and legal facts" that he convinced Mr. Power of the navigability of White River.²⁶⁹

If White River was indeed navigable, the Indianapolis Commercial Club wanted to promote this fact and take advantage of the associated economic benefits. The Commercial Club and the *Indianapolis News* backed an exploratory expedition of the river starting from the Washington Street bridge on 28 November 1899 utilizing a flatboat donated by the White River Sand Company. Headed by Frank D. Norville, captain of the *Sunshine*, of Broad Ripple, the explorers recorded the average depth of the river along the route, noted obstructions, the height of banks and bridges, and the natural resources along the river. The goal was to "prove to the Government the value of cleaning the stream of all obstructions, building dams and locks, and making the river really navigable for river craft. The citizens of the towns en route are also to be

²⁶⁹"White River is Navigable; Mr. Power Gives Way Before the Government," *Indianapolis News*, 7 November 1899.

interested in the scheme, and shown how much to their advantage the running of river craft would be.”²⁷⁰

The Commercial Club committee concluded that the river was navigable, in agreement with the U.S. Army Corps of Engineers, and recommended requesting a \$1,000,000 appropriation from the federal government for river improvements. The committee recommended building three or four dams below Gosport or Martinsville which would cause the upper portion of the river to be navigable at all times and navigable on the lower portion except at very low water. The committee believed the benefits of an “unmonopolizable commercial highway following through a region so rich in agricultural and mineral resources, and subserving so vast a population and such large and manufacturing and commercial interests and leading into the Mississippi river system will far exceed the reasonable expenditure of money necessary to improve said river.”²⁷¹ Although the parties agreed that the river was technically navigable, these river improvements were neither completed nor did the river become the commercial highway envisioned. This involvement by local non-governmental interests does indicate another hopeful moment that ended with disappointment and contributed to the relationship between residents and the river.

Following the 1913 flood, the issue of navigability came up again. Local physician, Dr. Edward A. Willis, contacted U.S. Senator Kern and asserted that the federal government should help with channel work to “eliminate conditions along White River that caused the recent flood in Indianapolis.” A familiar discussion took place of

²⁷⁰“White River Expedition; Starts From Washington Street Bridge Tomorrow,” *Indianapolis News*, 27 November 1899.

²⁷¹“Commends the Project; Commercial Club Investigators Say White River is Navigable,” *Indianapolis Journal*, 1 February 1900.

the 1876 Indiana Supreme Court decision and the position of the U.S. Army Corps of Engineers regarding navigability. Ultimately, President Woodrow Wilson authorized the U.S. Army Corps to investigate the flood problem. Their engineers visited Indianapolis in late April 1913 and inspected the banks of White River with the city engineer. According to the letter Dr. Willis received from Washington, eleven engineer officers were at work and expected to make a comprehensive and accurate report with ample funds available for that purpose.²⁷² Thus, the 1913 flood brought some positive attention and respect to the river not previously achieved.

The lack of flood control legislation prior to 1913 is revealing. The United States operates with a system of checks and balances accompanied by separation of powers between municipalities, counties, states, and the federal government. In addition, the power and independence of individuals is a hallmark of the country. Each person can purchase land and build on and modify that land with little regulation of his or her actions. Courts decide disagreements between parties. The cumulative result has led to disjointed and often conflicting actions. One prime example is the federal Swamp Lands Act administered by the state of Indiana that vested ownership rights to individuals. Not only did this approach cause chaos, the overall concept created economic conflicts. Land was drained for “productive” use, but that drainage caused flood damage in other places. The nineteenth and early twentieth centuries in America are marked by economic struggles as part of the effort to expand, settle, and unite the country. Cities like Indianapolis grasped industrialism as a means of lifting the city out of economic hard times. One could argue that the overall good of the city and its citizens was the driving

²⁷²“River Navigable Says War Office; Indianapolis Stream Comes Within Purview of Court Decision and Engineers’ Administration,” *Indianapolis Star*, 2 May 1913.

force behind the steps taken to “improve” conditions in Indianapolis. Others would argue the evils of capitalism and materialism focusing on who benefited and who did not as the city strove to succeed.

In conjunction with these larger “evils,” the relationship between citizens and the river provided the backdrop for flooding events that unfolded in Indianapolis in 1913. The river in effect was not navigable and, thus, did not provide any economic stimulus. The river and the surrounding landscape caused health concerns with mosquito-borne diseases. Residents of Indianapolis did not consider the water in White River potable; therefore, the river was not crucial to survival, eliminating another reason to give attention to the river. As the city developed, the river was viewed as a mechanism for carrying away industrial and human waste creating further health concerns.

Frequent flooding from the river did not endear it to residents either. In the midst of efforts to withstand economic hard times, the relationship that grew between inhabitants and the river included anger, fear, and loathing. As the unhealthy results of flooding increased, accompanied by increasing awareness of health issues, a social stigma developed for the areas most affected by flooding. The residents of West Indianapolis became outliers in terms of where they fit in with the city of Indianapolis.²⁷³ Indianapolis lost sight of what West Indianapolis and its early residents had contributed in terms of the original settlement and establishment of Indianapolis as an important player in the state and national economy.

²⁷³See Mike Davis, *Ecology of Fear: Los Angeles and the Imagination of Disaster* (New York: Metropolitan Books, Henry Hold and Company, Inc., 1998), 9; and Karl Jacoby, *Crimes Against Nature: Squatters, Poachers, Thieves, and the Hidden History of American Conservation* (Berkeley, Los Angeles, London: University of California Press, 2001).

City planning, or the lack of foresight with regard to planning, can create undesired local identities.²⁷⁴ A long-standing environmental concern for the residents of West Indianapolis was the garbage and sewage disposal plant located on property called Sellers Farm. Although the stockyards, railroads, and industries in West Indianapolis must have caused odor concerns, it was the municipal yard that drew the ire of residents. The argument over odors and unhealthy conditions reached the boiling point when residents filed a petition (that included more than 5,000 signatures) with the Board of Public Works for disannexation from Indianapolis in 1921. During a “heated discussion” between board members and the citizen delegation, the chairman of the Board of Public Works, Mark Miller, admonished the West Indianapolis citizens not to forget the flood prevention work that has been done for the protection of West Indianapolis property. Furthermore, Mr. Miller pointed out that in response to their complaints about Sellers Farm, a “new sewage disposal system is to be provided at a cost of millions of dollars” and “will be for the advantage of West Indianapolis which is at the low point in the city where the disposal plant must be placed”—“as sure as water must run downhill.” The delegation’s attorney, Emsley W. Johnson, responded: “water will keep on running downhill if you don’t stop it and we are objecting to you stopping the sewage in West Indianapolis.” Mr. Johnson further noted that Mr. Miller’s talk was “dignified and nice . . . but it rubs the fur of every man here.” One member of the delegation, Henry Harmon, said he was “tired of hearing of the things that have been done for West Indianapolis” because he had been one of the authors of the flood prevention bill that became law and

²⁷⁴See the work of Margaret Weir, “Planning, Environmentalism, and Urban Poverty: The Political Failure of National Land-Use Planning Legislation, 1970-1975,” Chapter 7 in Robert Fishman, ed., *The American Planning Tradition: Culture and Policy*, (Washington, D.C.: The Woodrow Wilson Center Press, 2000), 195.

knew that “this law was passed largely for the protection of big industrial plants.”

Another member pointed out that the Board of Public Works “would not consider putting these [refuse wagon] barns and other nuisances on the north side.”²⁷⁵ The board promised the citizens a full hearing on their petition, and the matter was temporarily resolved. A year later, the citizens of West Indianapolis threatened disannexation again in an argument over Sellers Farm.²⁷⁶

The environmental struggles of the area of Indianapolis formerly known as West Indianapolis continued through the twentieth century and into the next. Industrial zoning contributed to the identity of residents and reinforced the existing environmental inequalities. The community, established around railroads and early industry, grew into an area dominated by industrial plants in the years after 1913.

This study of the relationship between public policies and the environment in West Indianapolis began with the assumption that this community was unique. We learned quickly that there are similarities and links that can be quickly made with other studies. For example, industrial capitalism altered the relationship between citizens and the river similar to European and eastern American cities. As discussed in chapter one, flood control efforts in West Indianapolis paralleled actions and responses in other cases such as Sacramento, California, and communities in the Elkhorn and Kansas River Basins. Despite similarities, each case in fact working with its own set of circumstances and within its own culture—its own series of relationships. Planning historian Amos

²⁷⁵“West Indianapolis Petition is Filed; Citizens and Attorney Present Disannexation Plea to Works Board,” *Indianapolis News*, 18 July 1921.

²⁷⁶“Disannexation Threatened in Fight Over Sellers Farm,” *Indianapolis Star*, 2 August 1922.

Rapoport notes in *The Meaning of the Built Environment* (1982) that “people react to environments in terms of the meaning the environments have for them.”²⁷⁷

For residents of West Indianapolis, the environment held multiple meanings that often contradicted each other. The place was home, but years of recurrent flooding, environmental inequalities, failing to recognize the interdependent relationship with the river, and ineffectual public policies impacted that sense of home. The 1913 flood emphasized the meaning of the place. People living in the Valley lost any sense of safety in their lives that translated into a lack of confidence and a sense of being lower-class citizens. The 1913 flood separated West Indianapolis from Indianapolis and identified the area as undesirable.

²⁷⁷ Amos Rapoport, *The Meaning of the Built Environment: A Nonverbal Communication Approach* (Beverly Hills: Sage Publications, 1982), 13.

CONCLUSION: WEST INDIANAPOLIS TODAY

The founders of Indianapolis chose a site that, although abundant with natural resources, promised a continual battle with its topography and water sources. Steps taken to establish the city, such as clearing the land of forests and building levees and bridges, increased flooding problems. The city forged ahead completing flood control projects one at a time and bracing itself against the storms that would come. As the population grew, industry increased, and river control projects were completed, flooding and unhealthy water conditions multiplied as well. In the end, flooding exacerbated by human actions created unhealthy conditions and assigned undesirable identities.

The devastation from the 1913 flood and the ensuing imposed identity in West Indianapolis occurred because of the relationship that developed between residents and the river in their midst. This relationship can be traced to regional influences or, as Donald Worster referred to it, the “evolving human ecology.” Throughout the Wabash River Basin people acted under the general mindset that resources were limitless and there to be utilized for profit and developed to accommodate humans. Furthermore, regional coordination of alterations did not occur and evolved into an unintended environmental disaster.

The need to overcome economic hardships cultivated this mindset and conflicted with the need for clean water. At the same time that people were struggling to build a community and make a living, they were overlooking the consequences of their modifications to the landscape and use of the river. Constant expansion of the city and improvements to make the city modern depleted many natural resources and

overburdened others beyond capacity. Attitudes about modernity and progress resulted in environmental degradation.

The perceived non-navigable status of White River contributed to the conflicted relationship. The fact that the river did not provide a ready mode of transportation to aid and improve the economy spelled further neglect and misuse for the river. But, it is important to remember that the condition of the river was due in large part to runoff of soil and debris from cleared land. Although the 1876 court ruling was eventually reversed, the river's history as non-navigable had already solidified in the minds of the people. While improvements and maintenance of the river may have allowed navigation, efforts by business leaders and smaller riverine cities failed to come to fruition.

Restoring navigability would have been a costly effort if pursued, and the economic stress of the failed canal projects still affected these types of decisions in the basin.

Multiple private and public interests with different goals and ideas added disorder. The river basin crossed not only private property lines but also city, township, county, and state borders. Each entity had the right to act in its own best interest and in fact did so. A swamp drained in northern Indiana resulted in rerouted runoff that flowed southward. Waste dumped in streams north of West Indianapolis made its way to the low point in town. Progressive Era developers argued with federal engineers about use of rivers and flood waters with unsatisfactory, one-sided results. Municipal housekeepers pointed out violations such as musty cellars without the benefit of a remedy for the cause of the problem.

In the meantime, West Indianapolis suffered from recurrent flooding due to its low-lying landscape and increasing modifications by residents and businesses in the

expanding metropolis and state. Politicians hoped to avoid the uncomfortable topic of flooding. Luckily, words of hope and endurance bolstered constituents. The inhabitants of the basin were indurated to hard times, and they were proud of their ability to persevere. They knew that flooding was part of living in the basin, but they ensured that result by continuing to perform actions that exacerbated the problem. Misunderstanding of the reciprocal relationship and the multiple conflicts that existed in that relationship resulted in the phenomenon of the 1913 flood.

In the last half of the nineteenth century, Indianapolis, like many other American riverine cities, became involved in the popular ecology-based environmental movement and greatly improved the quality of the water in White River. Along with those improvements, cities rediscovered their rivers and integrated them into urban revitalization projects.²⁷⁸ Although Indianapolis has revived the landscape on the eastern banks of White River, the community of West Indianapolis has been excluded and has retained its identity as an unhealthy place. That tight-knit community that launched the city into the nineteenth century and economic prosperity is now a forgotten residential area surrounded by mammoth industrial plants.

In 2001, West Indianapolis had a population of 16,294.²⁷⁹ From its inception, the area of West Indianapolis has drawn immigrants struggling to make a start. The current population is a mixture of long-time residents or their descendants and the newest wave of Latino immigrants in search of work. West Indianapolis marches on as a small community within Indianapolis, although it has changed in many ways in the last one

²⁷⁸Scarpino, 206-208.

²⁷⁹This is the number of people included in the service region for the West Indianapolis Branch of the Indianapolis-Marion County Public Library in "Measuring the Library's Success in the Community," March 2001.

hundred years. The homes, many of which survived the 1913 flood, provide much needed low-income housing. (See Figures 20 to 24.) The industries that reside there, the affordable housing found there, and the immigrant community settling there are all important to the economy of Indianapolis.

The difference between downtown Indianapolis and West Indianapolis is striking. Within the last twenty years, city residents and administrators have taken a different view of White River and attributed new meaning to the river. The river is now an important component of the city's tourism initiatives. White River State Park, completed in the early 1990s, offers residents and visitors a retreat within walking distance of downtown Indianapolis to find recreation and exercise. Although the view of the river has changed in the last 100 years, the view of West Indianapolis has not.

Today, just outside the boundaries of West Indianapolis, the plans to beautify Indianapolis are on display. White River State Park, the Indianapolis Zoo and White River Gardens, the revitalized downtown Indianapolis, Indiana State Museum, Eiteljorg Museum, and impressive minor and major league sports stadiums are some of the sights one encounters when first stepping foot outside of West Indianapolis.

It seems that the landscape of West Indianapolis does not belong in the picture. But, it does; it is a vital part of the capital city. The 1913 flood ensured that West Indianapolis would survive as an important industrial hub as well as remain a separated neighborhood challenged by an unhealthy environment. As it did in the nineteenth century, the community also continues to serve as the *entrée* into the city and the country for many people.



Figure 20. 523 Coffey Street in West Indianapolis (the former Claghorn residence).
Digital photograph taken by Nancy Germano.



Figure 21. 805 and 807 River Avenue in West Indianapolis.
Digital photograph taken by Nancy Germano.



Figure 22. 810 River Avenue in West Indianapolis.
Digital photograph taken by Nancy Germano.



Figure 23. Looking across White River toward downtown Indianapolis from West Indianapolis. Digital photograph taken by Nancy Germano.



Figure 24. Looking east on Oliver Street toward downtown Indianapolis.
Digital photograph taken by Nancy Germano.

The people who arrived in West Indianapolis came to make a start. Some were landowners purchasing tracts of land for farming but keeping their ears tuned for other opportunities. Some were entrepreneurs with hopes of building successful businesses. Many were workers that needed stable employment to support their families. Single women came to West Indianapolis in search of the few jobs available to them, which manufactories in large cities were more likely to offer.

Following the flood, workers in West Indianapolis had the option of remaining, cleaning up their homes, and continuing with their lives, which is what Adeline Claghorn's family tried to do. We know from Adeline's account that they worked for days cleaning their house following the flood. The 1914 census shows the family still living at 523 Coffey and that her father, John Claghorn, continued to be employed as a laborer. However, by 1920, the census does not record a John Claghorn in West Indianapolis. Adeline and her sister, Mina, were lodgers with the Cain family on North Denny on the eastside of Indianapolis. We do not know what happened to prompt the rest of the family to move from their home at 523 Coffey.

The Claghorn's neighbors, the Vanasdals also remained in their home at 522 Coffey following the flood. The 1920 census shows them at the same address, although their household had grown. Their son George was 12 years old now, and they had added a daughter Mary, age 4, as well as two sisters-in-law, a sister, and a brother-in-law. The sisters-in-law both worked at a hotel, one as a waitress and the other as a cashier. The brother-in-law was employed as a traveling salesman. Likewise, the 1914 census shows that the Longemire family remained at 528 Coffey. By the 1920 census William

Longemire had died (in his early 50s), and his widow, Lucinda, their two daughters, and four sons had moved to 546 Marion Street in West Indianapolis.²⁸⁰

West Indianapolis is one industrial hub in Indianapolis, but its community makes it different from other local areas of industry. In 1890 the population of this suburb was 3,527. By the 1970s, this community included approximately 10,500 people.²⁸¹ The senior citizen group that collaborated to record the history of West Indianapolis were included in that number. Despite the challenges, the residents retained pride and confidence in their community.

West Indianapolis exemplifies the impact of flooding on communities. Other factors, in addition to flooding, helped create the identity of West Indianapolis. Settlement and growth from immigrant groups, highway development, and zoning restrictions also contributed to the identity of West Indianapolis. But, flooding was the factor that stamped it with the identity of a disposable community and left it to subsist in the midst of multi-million dollar industries. Flooding devalued homes, associated dirtiness and unhealthiness with the people living in the area, and made living in the community undesirable. The residents' loyalty, resilience, and sense of home carried this community. The view from the Valley is one of struggle. The view from the outside looking in raises questions about the possibilities for reviving this community's history.

The "Great Flood" of 1913 confirmed the relationship between the community of West Indianapolis and White River and then initiated social change in West Indianapolis. Changes came in the form of a growing divide among the residents in the community, a growing divide between the residents and industrial plants, and a growing divide between

²⁸⁰Census (1920).

²⁸¹Wolfer, 1.

the area and the rest of Indianapolis. Many of the businesses located in West Indianapolis today are large, national and international conglomerates in the automobile industry, life sciences industry, and manufacturing industries. Industry in West Indianapolis has grown and prospered since 1913, while the community around these businesses struggled to survive. Today, we see a radical difference between the sleek, modern buildings of industry and the homes in the surrounding community, many of which survived the 1913 flood.

Following the 1913 flood, Indianapolis reaffirmed its decision to use West Indianapolis for industrial purposes. Industrial zoning in West Indianapolis has injected toxins into the area via the river, ground water, and the air. West Indianapolis has some of the highest levels of air pollution in the city. Nineteen companies within a two-mile radius of the low-income area around Morris Street and Tibbs Avenue emitted three-fourths of the air pollution reported in Indianapolis in 2001, including ozone-producing compounds. The U.S. Environmental Protection Agency and experts who have reviewed the data look at the area as a dangerous neighborhood in which to live.²⁸² The homes and residents in West Indianapolis are outnumbered by the industrial plants and workers who only come to the area to put in their hours and then leave at the end of their shift.

Visually, industry overshadows the landscape.

As the struggle to find answers to questions about the plight of West Indianapolis continues, political ecologist Paul Robbins provides some words of comfort. Robbins calls for a “happy convergence” in political ecology studies—there will be tensions but “they need not restrict cooperative and mutual exploration of social/environmental phenomena.” He suggests approaching environmental struggles with a new language and

²⁸²“Toxic Air Raises Unhealthy Odds,” *Indianapolis Star*, 22 February 2004.

to “symmetrically imagine human and non-human processes in the landscape, surrendering a position of ‘mastery’ over the non-human world,” which is the “ultimate goal of mainstream environmentalism.”²⁸³

This study provides a historical perspective on a cultural and environmental problem that continues to occur today, even if the details are not always the same. Few Indianapolis residents know about the 1913 flood, but that flood is not only a significant part of our history, it is echoed in our present every time the city floods. The relationship between people and the river and landscape with which they cohabitate is crucial. Believing that humans can master the “non-human world” or believing that natural resources cannot be destroyed or possibly eliminated invites undesired results. Flooding has the power to create the identity of a community, but it is the interplay between the people and the river that gives flooding this power.

²⁸³Robbins, 209.

BIBLIOGRAPHY

Primary Sources

Manuscript Collections

Assumption Church of the Blessed Virgin Mary, church records located at the Archive Office of the Catholic Archdiocese of Indianapolis, 1400 North Meridian Street, Indianapolis, IN 46202.

Government Publications

Annual Report of the City of Indianapolis and Annual Message of Joseph E. Bell, Mayor of Indianapolis, with Annual Report of Heads of Departments of the City of Indianapolis, 1914 and 1915. Indianapolis: Sentinel Printing Co., 1915 and 1916. Located at Indiana University Library, Bloomington.

Census of the United States (1910-1920). Available at <http://www.ancestry.com>.

Horton, A. H. and H. J. Jackson. *The Ohio Valley Flood of March-April, 1913 (Including Comparisons with Some Earlier Floods)*. House of Representatives, 63d Congress, 2d Session, Document Number 421. Water-Supply Paper 334. Department of Interior, United States Geological Survey. George Otis Smith, Director. Washington Government Printing Office, 1913.

Indiana State Flood Commission, by E. W. Shirk. Report submitted to Governor Samuel M. Ralston. Located at Indiana State Archives, Commission on Public Records.

Indianapolis Board of Public Works. Minute Records 1891 to 1899. Located at Commissioner of Public Records, Indiana State Archives.

Indianapolis General Relief Committee for Flood Sufferers, March 26, 1913 to December 29, 1913, appointed by Mayor Samuel Lewis Shank March 26, 1913 and disbanded upon the completion of its duties December 29, 1913. *The Indianapolis Flood of March, 1913, and Measures for Relief of Flood Victims*. Indianapolis: Cornelius Printing Company.

Journal of the Common Council of the City of Indianapolis, Indiana, 1877-1915. Indianapolis: Sentinel Printing Company. Located at Indiana State Library.

Laws of the State of Indiana, 1915. Indianapolis: William B. Burford, Contractor for State Printing and Binding, 1915.

O'Harrow, Dennis, State Planning Board of Indiana. "Indiana Flood Damage." February, 1937. Located at Commission on Public Records, Indiana State Archives.

U.S. Department of Agriculture. *Bulletin Z: The Floods of 1913 in the Rivers of the Ohio and Lower Mississippi Valleys*, by Alfred J. Henry, Professor of Meteorology. Local Office, U.S. Weather Bureau, Indianapolis, Indiana. Washington: Government Printing Office, 1913.

_____, Weather Bureau. *The Flood on White River in March, 1913*, by Verne H. Church, Section Director. Indianapolis, April 8, 1913. Located at the Indiana State Library.

Newspapers and Periodicals

Indianapolis Journal, 1 February 1900.

Indianapolis News, 1897-1922.

Indianapolis Star, 1913-1922.

McClung, Hester M. "Women's Work in Indianapolis." *Municipal Affairs, A Quarterly Magazine Devoted to the Consideration of City Problems from the Standpoint of the Taxpayer and Citizen* no. 2 (1898): 523-526.

Books

Everett, Marshall (The Great Descriptive Writer). *Tragic Story of America's Greatest Disaster, Tornado, Flood and Fire in Ohio, Indiana, Nebraska and Mississippi Valley*. Chicago: J. S. Ziegler Company, 1913.

Garrett, C. W., comp. *A History of the Flood of March, 1913. Pennsylvania Lines West of Pittsburgh*. Pennsylvania Company: 1913.

Marshall, Logan. *The True Story of Our National Calamity of Flood, Fire and Tornado*. L. T. Myers: 1913.

Russell, Thomas H., A.M., L.L.D., ed. *Story of Great Flood and Cyclone Disasters. A complete and authentic account of the awful flood of 1913 in the rich and fertile valley of Ohio and Indiana*. Thomas H. Morrison: 1913.

Other Primary Sources

Bybee, Hal P., A. M., and Clyde A. Malott, A.B. *The Flood of 1913 in the Lower White River Region of Indiana*. Indiana University Studies, 22, Volume XII, Number 11. Indiana University Bulletin, October 1914.

Fuller, Weston E. "Flood Flows." *Transactions of the American Society of Civil Engineers*, 77, 1914.

Haine, Adeline Claghorn. *1913 Flood (West Indianapolis, Indiana) 523 Coffey Street, as remembered by Adeline Claghorn Haine in 1979*. Adeline Claghorn Haine, 2000.

Photographs taken by a Daring Photographer during the worst of the horrible catastrophe.
Twelve Views of the Indianapolis Flood of March 1913. Indianapolis: C. A. Tutewiler.

Polk's City Directory of Indianapolis, 1910-1913. Microfilm Collection, Indiana State Library.

Ross, *et al.* v. Faust, *et al.*, 54 Ind. 471 (1876).

State ex rel. Indiana Department of Conservation v. Kivett, 95 N.E.2d 145.

Town of West Indianapolis Ordinance Book A (1883-1889). Located at the Indiana State Archives.

Secondary Sources

Books and Essays

Ackerman, William C. and J. H. Dawes. "Water Management and the Wabash Basin." In Boyce, 171-182.

Agnew, John A. *Place and Politics: The Geographical Mediation of State and Society*. Boston: Allen & Unwin, Inc., 1987.

Amato, Joseph A. *Rethinking Home: A Case for Writing Local History*. Berkeley and Los Angeles: University of California Press and London, England: University of California Press, Ltd., 2002.

Armitage, Susan H. "Gender and Regionalism." In Lich, 85-100.

Barry, John M. *Rising Tide: The Great Mississippi Flood of 1927 and How It Changed America*. New York: A Touchstone Book published by Simon & Schuster, 1997.

Boone, Christopher G. "Zoning and Environmental Inequity in the Industrial East Side." In Deverell and Hise, 167-178.

Boyce, Ronald R., ed. *Regional Development and the Wabash Basin*. Urbana: University of Illinois Press, 1964.

_____. "Introduction to the Economy and Character of the Wabash Basin." In Boyce, 9-45.

Cayton, Andrew R. L. and Susan E. Gray, eds. *The American Midwest: Essays on Regional History*. Bloomington: Indiana University Press, 2001.

_____. "The Story of the Midwest: An Introduction." In Cayton and Gray, 1-26.

Chakravorty, Sanjoy. "The Spatial Transformation of Calcutta." In Fyfe and Kenny, 84-92.

- Cresswell, Tim. *Place: A Short Introduction*. Malden, Massachusetts: Blackwell Publishing, 2004.
- Cronon, William. *Nature's Metropolis: Chicago and the Great West*. New York/London: W. W. Norton & Company, 1991.
- _____. "Kennebec Journey: The Paths out of Town," in Cronon, Miles, and Gitlin, 28-51.
- Cronon, William, George Miles, and Jay Gitlin, eds. *Under an Open Sky: Rethinking America's Western Past*. (New York and London: W. W. Norton & Company, 1992).
- Davis, Mike. *Ecology of Fear: Los Angeles and the Imagination of Disaster*. New York: Metropolitan Books, Henry Hold and Company, Inc., 1998.
- Deverell, William and Greg Hise, eds. *Land of Sunshine: An Environmental History of Metropolitan Los Angeles*. Pittsburgh: University of Pittsburgh Press, 2005.
- Dunn, Jacob Piatt. *Greater Indianapolis: The History, the Industries, the Institutions, and the People of a City of Homes*. Chicago: The Lewis Publishing Company, 1910.
- Eckert, Allan W. *A Time of Terror: The Great Dayton Flood*. Boston/Toronto: Little, Brown and Company, 1965.
- Elazar, Daniel J. "Influences on Political Values and the Wabash Basin." In Boyce, 121-142.
- Esarey, Logan. *A History of Indiana: From Its Exploration to 1850*. Indianapolis: Hoosier Heritage Press, Inc., 1970.
- Evans, Peter. *Livable Cities? Urban Struggles for Livelihood and Sustainability*. Berkeley, Los Angeles, London: University of California Press, 2002.
- Fairfield, John D. *The Mysteries of the Great City: The Politics of Urban Design, 1877-1937*. Columbus: Ohio State University Press, 1993.
- Fishman, Robert, ed. *The American Planning Tradition: Culture and Policy*. Washington, D.C.: The Woodrow Wilson Center Press, 2000.
- Fyfe, Nicholas R. and Judith T. Kenny. *The Urban Geography Reader*. New York: Routledge, 2005.
- Gumbrecht, Blake. "Who Killed the Los Angeles River?" In Deverell and Hise, 115-134.

- Hays, Samuel P. *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920*. Cambridge, Massachusetts: Harvard University Press, 1959; reprint, Pittsburgh: University of Pittsburgh Press, 1999.
- _____. *The Response to Industrialism, 1885-1914*. The Chicago History of American Civilization, ed. Daniel J. Boorstin. Chicago: The University of Chicago Press, 1947.
- _____. "The Role of Urbanization in Environmental History." *Explorations in Environmental History: Essays by Samuel P. Hays*. Pittsburgh: University of Pittsburgh Press, 1998.
- _____. "Value Premises for Planning and Public Policy: The Historical Context." *Explorations in Environmental History: Essays by Samuel P. Hays*. Pittsburgh: University of Pittsburgh Press, 1998.
- Hoy, Suellen. *Chasing Dirt: The American Pursuit of Cleanliness*. New York: Oxford University Press, 1995.
- Hurley, Andrew. *Environmental Inequalities: Class, Race, and Industrial Pollution in Gary, Indiana, 1945-1980*. Chapel Hill and London: The University of North Carolina Press, 1995.
- Jacoby, Karl. *Crimes Against Nature: Squatters, Poachers, Thieves, and the Hidden History of American Conservation*. Berkeley, Los Angeles, London: University of California Press, 2001.
- Jordan, Terry G. "Concept and Method." In Lich, 8-24.
- Kelman, Ari. *A River and Its City: The Nature of Landscape in New Orleans*. Berkeley: University of California Press, 2003.
- Kemper, J. P. *Rebellious River: Use and Abuse of America's Natural Resources*. Boston: Bruce Humphries, Inc., 1949; reprint by permission of Branden Press Inc., New York: Arno Press, a New York Times Company, 1972.
- Lamar, Howard R. "Regionalism and the Broad Methodological Problem." In Lich, 25-46.
- Larson, John Lauritz. "Pigs in Space; or, What Shapes America's Regional Cultures?" In Cayton and Gray, 69-77.
- Leary, Edward A. *Indianapolis: The Story of a City*. Indianapolis/New York: The Bobbs-Merrill Company, Inc., 1971.
- Lich, Glen E., ed. *Regional Studies: The Interplay of Land and People*. College Station: Texas A&M University Press, 1992.

- Lewis, Pierce F. *New Orleans: The Making of an Urban Landscape*, 2d ed. Santa Fe, New Mexico: Center for American Places and Charlottesville: University of Virginia Press, 2003.
- _____. "Spatial Integration: The Argument for Context." In Lich, 166-178.
- Madison, James H., ed. *Heartland: Comparative Histories of the Midwestern States*. Bloomington: Indiana University Press, 1988.
- _____. *The Indiana Way: A State History*. Bloomington: Indiana University Press, 1986.
- Marsh, George P. *The Earth as Modified by Human Action. A New Edition of Man and Nature*. New York: Scribner, Armstrong & Co., 1874.
- McCullough, David G. *The Johnstown Flood*. New York: Simon and Schuster, Inc., 1968.
- Meinig, D. W. *The Interpretation of Ordinary Landscapes: Geographical Essays*. New York: Oxford University Press, 1979.
- Melosi, Marvin V., ed. *Pollution and Reform in American Cities, 1870-1930*. Austin: University of Texas Press, 1980.
- Mitchell, Ross E., ed. *Thorstein Veblen's Contribution to Environmental Sociology: Essays in the Political Ecology of Wasteful Industrialism*. Lewiston, New York: The Edwin Mellen Press, 2007.
- Mumford, Lewis. *The Culture of Cities*. New York and London: Harcourt Brace and Jovanovich, Inc., 1938; recopyrighted by Lewis Mumford, 1970.
- _____. "The Value of Local History." *The Pursuit of Local History: Readings on Theory and Practice*. Carol Kammen, ed. Walnut Creek, California: AltaMira Press, A Division of Sage Publications, Inc., 1996.
- Orsi, Jared Paul. "Flood Control and Engineering in the Urban Ecosystem." In Deverell and Hise, 135-151.
- Phillips, Clifton J. *Indiana in Transition: The Emergence of an Industrial Commonwealth, 1880-1920*. Indianapolis: Indiana Historical Bureau & Indiana Historical Society, 1968.
- Rapoport, Amos. *The Meaning of the Built Environment: A Nonverbal Communication Approach*. Beverly Hills: Sage Publications, 1982.
- Robbins, Paul. *Political Ecology: A Critical Introduction*. Malden, Massachusetts: Blackwell Publishing, 2004.

- Scarpino, Philip V. *Great River: An Environmental History of the Upper Mississippi, 1890-1950*. Columbia, Missouri: University of Missouri Press, 1985.
- Shortridge, James R. *The Middle West: Its Meaning in American Culture*. Lawrence: University Press of Kansas, 1989.
- Steinberg, Theodore. *Nature Incorporated: Industrialism and the Waters of New England*. Amherst: University of Massachusetts Press, 1991.
- Thompson, John. *Wetlands Drainage, River Modification, and Sectoral Conflict in the Lower Illinois Valley, 1890-1930*. Carbondale and Edwardsville: Southern Illinois University Press, 2002.
- Tuan, Yi-Fu. *Topophilia: A Study of Environmental Perception, Attitudes, and Values*. Englewood Cliffs, New Jersey: Prentice Hall, 1974.
- Vileisis, Ann. *Discovering the Unknown Landscape: A History of America's Wetlands*. Washington, D.C.: Island Press, 1999.
- Weir, Margaret. "Planning, Environmentalism, and Urban Poverty: The Political Failure of National Land-Use Planning Legislation, 1970-1974." In Fishman, 193-215.
- White, Richard. *The Organic Machine: The Remaking of the Columbia River*. New York: Hill and Wang, a division of Farrar, Straus and Giroux, 1995.
- Wilson, William H. *The City Beautiful Movement*. Baltimore: John Hopkins University Press, 1989.

Articles

- Bell, Trudy E. "Taking Engineering by Storm." *The Bent of Tau Beta Pi* (Winter 2004): 15-22.
- Cronon, William. "A Place for Stories: Nature, History, and Narrative." *The Journal of American History* 78, no. 4 (Mar., 1992): 1347-1376.
- Hedeen, Stanley. "Waterproofing the Mill Creek Flood Plain." *Queen City Heritage* 56, no. 1 (1998): 15-24.
- Jensen, Richard. "On Modernizing Frederick Jackson Turner: The Historiography of Regionalism," *Western Historical Quarterly* 11, no. 3 (1980): 307-322.
- Kerstetter, Todd M. "High Water: Flooding in the Elkhorn Basin, 1823-1940." *Nebraska History* 76, no. 4 (1995): 176-187.
- Kling, Matthew. "Changing Spaces: Nature, Property, and Power in Seattle, 1880-1945," *Journal of Urban History* 32, no. 2 (2006): 197-230.

Pearcy, Matthew T. "After the Flood: A History of the 1928 Flood Control Act." *Journal of Illinois State Historical Society* 95, no. 2 (2002): 172-191.

Strausberg, Stephen F. "Indiana and the Swamp Lands Act: A Study in State Administration." *Indiana Magazine of History* 93 (1977): 191-203.

White, Richard. "American Environmental History: The Development of a New Historical Field." *Pacific Historical Review* 54 (1985): 299-300.

Theses and Dissertations

Habbe, Edith. "The Indianapolis Flood of 1913. A Study of Disaster and Permanent Dependency Based on 2332 Families Receiving Rehabilitation Aid after the 1913 Flood." M.A. thesis, Indiana University, 1920.

Hackerd, Jeremy Lynn. "Conservation and Indiana Gubernatorial Politics, 1908-1916." M.A. thesis, Indiana University, 2006.

Kershner, Frederick Doyle, Jr. "A Social and Cultural History of Indianapolis, 1860-1914." Ph.D. diss., University of Wisconsin, 1950.

Nimz, Dale E. "Rivers That Work: Environment, Engineering, and Policy Change in the Kansas River Basin." Ph.D. diss., University of Kansas, 2003.

Reichard, Ruth Diane. "Infrastructure, Separation, and Inequality: The Streets of Indianapolis Between 1890 and 1930." M.A. thesis, Indiana University, 2008.

Other Secondary Sources

Bambakidis, Eli, archivist, ed. *1913: Preserving the Memories of Dayton's Great Flood*. Proceedings of the Symposium October 22, 2002, sponsored by Dayton Metro Library, Ohio Humanities Council, Miami Conservancy District, Ohio Preservation Council and Beavercreek Women's League. Dayton Metro Library, 2004.

Divita, James J., Professor of History, Marian College. "Workers' Church: centennial history of The Catholic Parish of the Assumption of the Blessed Virgin Mary in West Indianapolis." Indianapolis: Centennial Committee, Church of the Assumption, 1994.

Members of the Mary Rigg Senior Citizens Group: Malcolm Biggs, Esther Cauble, George James, Marcella James, Ernest Leawellen, Genevieve Repass, William Reuter, Lorena Totton, and Leland Winsted. "Early West Indianapolis." Special Collections, West Indianapolis Branch, Indianapolis-Marion County Public Library, written October 22, 1979.

Nordyke & Marmon Company: An Institution. A History of the Development of a Leading Indianapolis Industry. Special Edition prepared expressly for distribution to delegates to the Convention of the Associated Advertising Clubs of the World, Indianapolis, June 6-10, 1920, located at the Indiana Historical Society.

Wolfer, Margaret. "Social History of the 'West Indianapolis' Section of Indianapolis, Indiana." Special Collections, West Indianapolis Branch, Indianapolis-Marion County Public Library, written in the late 1970s.

CURRICULUM VITAE

Nancy M. Germano

Education:

Master of Arts, Public History, 2009, Indiana University, Indiana University-Purdue University Indianapolis; Indianapolis, Indiana

Bachelor of Science/Arts in Business Management (with a concentration in human resources), cum laude, 2000, University of Indianapolis; Indianapolis, Indiana

Associate of Science/Arts in Paralegal Studies, 1987, University of Indianapolis; Indianapolis, Indiana

Academic Awards and Honors:

Recipient, Educational Enhancement Grant, Graduate Student Organization, 2007

Recipient, Travel Fellowship Award, Graduate Office and Fellowship Committee, 2007

Recipient, Best Graduate Paper Award, 2006

Recipient, Student Project Award, National Council on Public History, 2006

Presented Papers:

“West Indianapolis: The People and The Place,” Indiana Association of Historians Annual Conference, Indianapolis, Indiana, February, 2008

“The Power of Urban Flooding to Reshape Society,” International Water History Association Conference, Tampere, Finland, June, 2007

Publications:

“White River and the ‘Great Flood’ of 1913: An Environmental History of Indianapolis,” *Circular* (Winter 2008): 1-7.

“Barrett Law Assessments,” Broad Ripple Historic Home Tour pamphlet (September 2007): 6-7.

Professional Experience and Internships:

Employee Benefits Paralegal, Ice Miller LLP, Indianapolis, Indiana, June 2000 to present

Graduate Intern, Indianapolis Cultural Heritage Trail, 2005

Graduate Intern, Indiana Medical History Museum, 2004 to 2005